U. S. ARMY CORPS OF ENGINEERS
CIVIL WORKS PROGRAM

CONGRESSIONAL SUBMISSION
FISCAL YEAR 2004

SOUTH PACIFIC DIVISION

Budgetary information will not be released outside the Department of the Army until 3 February 2003

JUSTIFICATION OF ESTIMATES FOR CIVIL FUNCTIONS ACTIVITIES
DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS
FISCAL YEAR 2004

SOUTH PACIFIC DIVISION

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FISCAL YEAR 2004

SOUTH PACIFIC DIVISION

Summary

General Investigations	FY 2003 Allocation	FY 2004 Request	Increase or Decrease
Surveys	TBD	$ 15,900,000	TBD
Preconstruction Engineering and Design	TBD	0	TBD
Subtotal General Investigations	(TBD)	(15,900,000)	(TBD)
Construction, General			
Construction	TBD	114,800,000	TBD
Dam Safety Assurance	TBD	1,000,000	TBD
Subtotal Construction, General	(TBD)	(115,800,000)	(TBD)
Operations and Maintenance			
Project Operations	TBD	47,807,000	TBD
Project Maintenance	TBD	56,020,000	TBD
Subtotal Operations and Maintenance	(TBD)	(103,827,000)	(TBD)
GRAND TOTAL, SOUTH PACIFIC DIVISION	TBD	$235,527,000	TBD

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
1. SURVEYS – NEW					
a. Navigation Studies: None					
b. Flood Damage Prevention Studies: None					
c. Shoreline Protection Studies: None					
d. Special Studies: The amount of $200,000 is requested to initiate two new ecosystem restoration studies.					
Arizona					
Canada del Oro Wash Los Angeles District	100,000	0	0	100,000	0

Canada del Oro Wash study area is located in Pima County and encompasses the northern portion of the metropolitan area of Tucson, the second largest city in Arizona. Canada del Oro Wash is 13 miles long and drains the northern slope of the Catalina Mountain Range flowing into the Santa Cruz River one mile north at the confluence of the Rillito and Santa Cruz Rivers. The study will focus on environmental restoration, flood damage reduction, and related purposes. The study will also investigate opportunities for incorporation of historical cultural features and environmentally-degraded, flood prone areas available for restoration in conjunction with the Sonoran Desert Conservation Plan, a local initiative. The initiative consists of six elements: ranch conservation, historic and cultural preservation, riparian restoration, mountain parks, habitat, biological and ecological corridor conservation, and critical and sensitive habitat preservation. Organizations including Defenders of Wildlife, Sierra Club, and other civic groups support the conservation plan. Government agencies from local, state and Federal entities are also supportive of this effort. Pima County, the potential local sponsor, is very supportive of the study, understands the two-phase planning process, and is willing to consider participation in 50-50 cost sharing of the feasibility phase study. The reconnaissance phase is scheduled for completion 12 months after initiating the study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: (cont'd)					
California					
San Francisquito Creek San Francisco District	100,000	0	0	100,000	0

The study area is located in the northern portion of Santa Clara County, and in southern San Mateo County, in Northern California, about 22 miles south of San Francisco. The area is about 12.5 miles long and extends from the San Francisco Bay near the Palo Alto Airport to Searsville Lake, in the foothills above Stanford University. The primary problem area along the creek is downstream of El Camino Real which forms the boundary between East Palo Alto and Menlo Park, and Palo Alto. The Corps completed a flood damage prevention study in 1972; however, it determined that flood protection measures were not economically justified at that time. Since 1972, changed economic and hydrologic conditions have increased the flood hazard in the area. The area has experienced recent severe flooding, including the most damaging flood of record which occurred in 1998. The Corps' March 1999 report of the post-flood assessment determined approximately 1,700 households were adversely impacted, and damages exceeded $28 million. Preliminary estimates indicate the potential average annual damages are greater than $8 million. Nearly 5,000 homes, businesses, schools, and industrial sites lie within the flood plain. The Federal Emergency Management Agency has recently prepared new flood hazard maps incorporating its levee policy for the flood prone area. San Francisquito Creek is also one of the last continuous riparian corridors on the San Francisco peninsula, and one of the last remaining viable steelhead trout runs. This study would evaluate potential solutions to flooding, and environmental restoration. The San Francisquito Creek Joint Powers Authority, the local sponsor, expressed support for the study in April 2002, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The funds requested for Fiscal Year 2004 will be used to initiate the reconnaissance phase of the study at full Federal expense. The reconnaissance study is scheduled to be completed in January 2005, which is 12 months after initiation of the study.

Total – Special Studies	200,000	0	0	200,000	0
d. Comprehensive Studies: None					
TOTAL SURVEYS – NEW	200,000	0	0	200,000	0

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
2. SURVEYS - CONTINUING:					
a. Navigation Studies: The amount of $691,000 is requested to continue three studies in Fiscal Year 2004.					
California					
Marina del Rey and Ballona Creek Los Angeles District	3,075,000	2,417,000	TBD	150,000	TBD

Marina del Rey is located in Los Angeles County, about 20 miles southwest of the city of Los Angeles, California. The existing Federal navigation project for Marina del Rey, formerly Playa del Rey Inlet and Harbor, consists of two jetties and navigation channels ranging from 15 to 20 feet in depth and a depth of 12 feet in the interior channels. Marina del Rey is homeport to about 15 commercial fishing boats and is used by 50 other transit boats with a total annual fish catch of nearly 10 million pounds valued at approximately $10 million. There are also about ten charter boat operations and five tour boat operations that are used by over 100,000 people each year. The harbor contains over 6,000 berths, primarily servicing recreational craft. An offshore breakwater was added to the Federal project in 1963. The Corps has performed periodic maintenance dredging to maintain channel depths. Shoaling of the navigation channels is caused by the littoral movement of sediment along the coast as well as material transported out of the Ballona Creek flood control channel. Disposal of the material from Ballona Creek is complicated due to the nature of the contaminants found in the material. There is strong support for Federal investigation of harbor modification, as the complications surrounding disposal of the material in the existing navigation channels are impeding formal maintenance responsibilities and may threaten existing as well as future navigational usage of the harbor. The County of Los Angeles, the local sponsor, signed the Feasibility Cost-Sharing Agreement in February 1997.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $5,300,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,725,000
Reconnaissance Phase (Federal)	425,000
Feasibility Phase (Federal)	2,650,000
Feasibility Phase (Non-Federal)	2,650,000

The reconnaissance phase was completed in February 1997. A completion date is to be determined for the feasibility study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
a. Navigation Studies: (cont'd)					
San Francisco Bay San Francisco District	1,990,000	778,000	TBD	420,000	TBD

The study area is located in central San Francisco Bay, California. Navigational safety in San Francisco Bay is currently impaired due to submerged rocks and shoals bordering existing navigation channels. The proximity to the channels and the shallow depth of the rocks, up to 33 feet in depth, have created concern with local and Federal agencies for the safety of vessels with drafts up to 50 feet, which transit the channels carrying international and domestic cargos, including petroleum, containers, bulk and breakbulk goods and military cargos. The study will determine if there is Federal interest in removing navigation hazards that could cause catastrophic accidents. Many of the vessels transport petroleum products. An oil spill in October 1996 caused over $3 million in damages. A number of local agencies and groups are interested in assuring that this does not recur. The California State Lands Commission, the local sponsor, signed the Feasibility Cost Sharing Agreement in February 2000.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $3,760,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,870,000
Reconnaissance Phase (Federal)	110,000
Feasibility Phase (Federal)	1,880,000
Feasibility Phase (Non-Federal)	1,880,000

The reconnaissance phase was completed in February 2000. The feasibility phase completion date is to be determined.

Ventura Harbor Sand Bypass Los Angeles District	1,200,000	699,000	TBD	121,000	TBD

The study area is located on the Pacific Coast of the city of San Buenaventura in Ventura County, about 60 miles northwest of Los Angeles. The existing Federal navigation project at Ventura Harbor consists of jetties, entrance channels, breakwaters, and sand trap. The Federal Government is presently responsible for maintaining old navigation improvements at recent Federal cost averaging $2 million a year. The Ventura Port District operates all harbor facilities. The Harbor

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

a. Navigation Studies: Ventura Harbor Sand Bypass (cont'd)

District is interested in development of a sand-bypass system to maintain harbor channels which may be less costly than traditional dredging of the sand trap and channels every year or two. The sand-bypass system may also have beneficial impacts to adjacent shorelines and environmental areas by providing a more frequent movement of material to nourish the down-coast littoral system. The study will assess circulation and sediment transport pattern within the sand bypass by numerically modeling the closure of the gap between the North Jetty and detached breakwater. The Ventura Port District, the local sponsor, signed the Feasibility Cost Sharing Agreement in November 1999.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,000,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,200,000
Reconnaissance Phase (Federal)	200,000 1/
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

1/ Includes $100,000 for additional reconnaissance phase study effort as directed in the Energy and Water Development Appropriations Act, 1998.

The reconnaissance phase was completed in November 1999. A completion date is to be determined for the feasibility study.

TOTAL NAVIGATION STUDIES	6,265,000	3,894,000	0	691,000	0

b. Flood Damage Prevention Studies: The amount of $4,261,000 is requested to continue twenty-one studies and complete two studies in Fiscal Year 2004.

Arizona

Santa Cruz River (Grant Road to Ft. Lowell Road) Los Angeles District	1,375,000	380,000	TBD	100,000	TBD

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Santa Cruz River (Grant Road to Ft. Lowell Road) (cont'd)

The study area is located along the Santa Cruz River approximately five miles northwest of downtown Tucson, Arizona. The study would determine if there is a Federal interest in providing flood control to the properties along the river. Potential measures include both structural and non-structural methods. The Santa Cruz River is characterized by large violent flood events, which carry high volumes of sediment, and cause extensive erosion and inundation of adjacent land. The University of Arizona's Agricultural Research Station is at high risk during large flood events. Pima County, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2002.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,375,000
Reconnaissance Phase (Federal)	375,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase was completed in September 2002. A completion date is to be determined for the feasibility study.

California

City of Santa Clarita Los Angeles District	1,600,000	63,000	TBD	141,000	TBD

The study area is located in northern Los Angeles County, California. This area encompasses the headwaters of the Santa Clara River, which originates in the mountains of the northern Los Angeles County and flows through the Santa Clarita Valley and the city of Santa Clarita and reaches the Pacific Ocean in adjacent Ventura County, a distance of about 50 miles. Urbanization has outpaced the valley's ability to provide the appropriate level of flood protection. The preservation of the riparian community along the river has now become a significant issue as the community attempts to find a balance between growth and protection of the environment. The study will evaluate improvements for flood control and identify environmental restoration opportunities in the communities, which will protect and enhance existing habitat while

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: City of Santa Clarita (cont'd)

incorporating elements needed for urban development. The City of Santa Clarita, the local sponsor, expressed support for the study in September 2002, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $3,000,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase is scheduled to be completed July 2003. A completion date is to be determined for the feasibility study.

Coyote Dam San Francisco District	1,100,000	68,000	TBD	100,000	TBD

The study area is located in northern California on the east fork of the Russian River at Coyote Valley, near the city of Ukiah. The Russian River drains an area of 1,485 square miles. Approximately two-thirds of this area is in Sonoma County, with the remainder in Mendocino County. The existing Corps project, Coyote Dam, which was completed in 1957, consists of an earth-filled dam 160 feet high and 3,560 feet long, with a reservoir storage capacity of 122,000 acre feet. The authorized project included sediment, flood control, and domestic and agricultural water supply pools with a storage capacity of 199,000 acre feet. An additional water supply portion, which included additional storage for about 77,000 acre feet, was placed in the deferred category as local interest considered it unnecessary at that time. Since then, increased development has caused a need for additional water supplies as well as improvements for flood control. During the storms of February 1986, an estimated $30 million in damages occurred along the Russian River (Hopland to Ukiah) in Sonoma and Mendocino Counties. Severe property damage also occurred to public, residential, and commercial properties in the town of Guerneville where the Russian River overtopped its banks. The Mendocino County Russian River Flood Control District, the local sponsor, expressed support for the study in May 2001, understands the two-phase planning process, and is willing to participate in

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Coyote Dam (cont'd)

50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in July 2003. The feasibility phase completion date is to be determined.

Grayson and Murderer's Creeks Walnut Creek Basin Sacramento District	1,100,000	57,000	TBD	400,000	TBD

The study is located near the city of Pleasant Hill in Contra Costa County, California, about 20 miles east of the city of San Francisco, and comprises about 180 square miles. The study area has a population of over 400,000 and serves as a commercial and industrial center for the surrounding region. The study, which includes the Grayson and Murderer's Creek watersheds focuses on two of the five primary tributaries to the completed Walnut Creek Project authorized by the Flood Control Act of 1960. As a result of continued rapid urbanization, much of the upper Walnut Creek Basin is experiencing flood and drainage problems outside of the existing Walnut Creek Project area, and several tributary channels are inadequate to handle increased floodflows. Flooding in 1982 and 1983 caused about $18 million in damages to unprotected areas of the Walnut Creek Basin. A feasibility study was initiated in June 1989 to reevaluate the feasibility of flood control on specific sections of Murderer's, Grayson, San Ramon, Tice, and Green Valley Creeks. The study resulted in a negative feasibility report due to economic infeasibility of all project alternatives and was terminated in December 1992. The

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Grayson and Murderer's Creeks, Walnut Creek Basin (cont'd)

potential local sponsor, Contra Costa County Flood Control and Water Conservation District, is now requesting a resumption of the study due to continued flooding problems, particularly along Grayson Creek. The study would focus on construction of a detention basin, estimated to cost between $25 and $35 million, to alleviate the flood threat. Contra Costa County Flood Control and Water Conservation District expressed renewed support for a feasibility study with the submission of a letter of intent in September 2002. The county understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase at full Federal expense and, if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in March 2003. The feasibility study completion is to be determined.

Poso Creek Sacramento District	1,450,000	188,000	TBD	300,000	TBD

The White River, Poso and Deer Creeks reconnaissance phase study, which was initially funded in the Energy and Water Development Appropriations Acts of 1999 and 2000, recommended that the studies continue into the feasibility phase as two separate studies, one as White River and Deer Creek and the second as Poso Creek. The study area is in Kern County in central California along Poso Creek. In January 1981 the Corps prepared a reconnaissance-level report that determined flood control measures for this area to be economically infeasible. However, during the past 20 years, frequency of flooding has greatly increased and extensive land development and improvements have occurred in the area. As a result of the January 1997 floods, State Highway 99, a major artery linking Northern and Southern California, was closed for over a week and flood

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Poso Creek (cont'd)

damage occurred in the town of McFarland. This was the fifth time in 40 years that flooding occurred in the area. The reconnaissance study addresses the economic benefits of various alternatives including detention facilities, levees and channels, and floodproofing. The feasibility study will investigate the economic, environmental, social and engineering feasibility of the alternative plans. The Poso Creek Improvement Joint Powers Agreement Agencies, the local sponsor, signed the Feasibility Cost Sharing Agreement in October 2000.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,850,000
Reconnaissance Phase (Federal)	50,000
Feasibility Phase (Federal)	1,400,000
Feasibility Phase (Non-Federal)	1,400,000

The reconnaissance phase was completed in October 2000. The feasibility study completion is to be determined.

San Bernardino County Los Angeles District	1,125,000	125,000	TBD	100,000	TBD

The study area encompasses approximately 500 square miles in San Bernardino County, in southern California, with an estimated population of 2.5 million. Wilson Creek and Lytle Creek originate in the San Bernardino Mountains and flow in a south and southwesterly direction through the cities of Yucaipa, San Bernardino and Colton. The drainage has been altered by urbanization, sand and gravel mining operations resulting in changes to the floodway, sediment movement and habitat. Runoff has increased substantially posing an increased flood risk within the basin. The investigation will evaluate Lytle Creek for potential environmental restoration and Wilson Creek for flood control. The San Bernardino County Flood Control District, the local sponsor, expressed support for the study in July 2002, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in April 2003.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: San Bernardino County (cont'd)

Fiscal Year 2003 funds are being used to complete the reconnaissance phase at full Federal expense and if the reconnaissance report is certified to be in accord with policy, Fiscal Year 2003 funds will be used to initiate the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in April 2003. A completion date is to be determined for the feasibility study.

San Joaquin River Basin, Frazier Creek Sacramento District	1,560,000	45,000	TBD	100,000	TBD

The study area is located on the western slope of the Sierra Nevada range in Tulare County between the towns of Porterville and Strathmore. Frazier Creek is an uncontrolled stream that once was a tributary of the Tule River. Frazier Creek flows were blocked by the construction of the Friant-Kern Canal, and have the potential to cause flooding to the town of Strathmore. Frazier Creek has flooded valuable agricultural lands numerous times just in this decade, most recently in 1998. County roads become impassable and lives, homes and farms are threatened. In 1998, flooding threatened nearby communities in the area including the community of Strathmore with a population of approximately 2,350. The study will investigate flood control alternatives, including a small dam structure and a permanent channel to an existing canal. Tulare County, the potential local sponsor, has expressed support for the study, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase at full Federal expense and, if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: San Joaquin River Basin, Frazier Creek (cont'd)

requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,060,000
Reconnaissance Phase (Federal)	60,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase is scheduled for completion in July 2003. The feasibility study completion date is to be determined.

San Joaquin River Basin, Tuolumne River and Tributaries Sacramento District	1,007,000	108,000	TBD	350,000	TBD

The study area is located on the western slope of the Sierra Nevada mountain range in Tuolumne and Stanislaus Counties in Northern California. The watershed drains into the San Joaquin River and is bounded on the north by the Stanislaus River watershed and on the south by the Merced River watershed. The city of Modesto is the largest urban community in the study area with a population of 198,600 (January 2002) and is located approximately 80 miles south of Sacramento. The major water resource project located in the study area is Turlock Irrigation District's New Don Pedro Reservoir. It provides storage for flood control, water supply, and hydropower generation. Other non-Federal water supply reservoirs include Hetch Hetchy, Cherry Lake, and La Grange. The Tuolumne River drains an area of about 1,960 square miles from the Sierra Nevada range to the San Joaquin River. Dry Creek is the largest unregulated stream in the basin below New Don Pedro Reservoir and causes significant flood problems in the Modesto area. Dry Creek drains an area of about 196 square miles. Historically, flood waters overflow the defined channels along the Tuolumne River and Dry Creek during significant storms. Floods in January 1997 forced over 1,400 homes to be evacuated and resulted in damages at about $14 million in and around Modesto. The State of California Reclamation Board, the local sponsor, expressed support for the study in October 1998, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase studies. Stanislaus County,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: San Joaquin River Basin, Tuolumne River and Tributaries (cont'd)

the City of Modesto, Turlock Irrigation District, and Modesto Irrigation District have also expressed support for the study. The Feasibility Cost Sharing Agreement was signed 24 September 2002.

Fiscal Year 2003 funds will be used to continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $1,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,907,000
Reconnaissance Phase (Federal)	107,000
Feasibility Phase (Federal)	900,000
Feasibility Phase (Non-Federal)	900,000

The reconnaissance phase was completed in September 2002. The feasibility study completion date is to be determined.

San Joaquin River Basin, West Stanislaus County, Del Puerto and Salado Creeks Sacramento District	1,500,000	0	TBD	50,000	TBD

The study area is located in western Stanislaus County, approximately 10 miles southwest of Modesto, California. The city of Patterson and the surrounding agricultural lands suffered significant losses from flooding in 1998, 1995, 1986, 1983, and 1980. Riparian habitat for the endangered Valley Elderberry Longhorn Beetle has also been affected by flooding in the area. Over the past 50 years, changes to the topography and drainage patterns have occurred with the construction of the Delta Mendota Canal, the California Aqueduct and Interstate 5. These changes have significantly affected hydrology and sediment yields entering the creeks in this area contributing to increased flooding. The reconnaissance investigation evaluated potential solutions for flood control, ecosystem restoration, and related purposes and was completed in September 1998. Due to revising the scope of the West Stanislaus County Feasibility Study to address specific basin concerns and schedules, the local sponsor, Stanislaus County, requested that the study be separated into two separate studies. The first, West Stanislaus County, Orestimba Creek feasibility study is scheduled for completion in June 2004. The second, West Stanislaus

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: San Joaquin River Basin, West Stanislaus Co., Del Puerto & Salado Creeks (cont'd)

County, Del Puerto and Salado Creeks feasibility study is scheduled for initiation June 2004 following completion of the Orestimba study. The West Stanislaus County, Del Puerto and Salado Creeks study has been expanded to evaluate the feasibility of hydropower, water supply, ecosystem restoration, and recreation. Stanislaus County, the local sponsor, expressed support for the new expanded scope of the study in December 2001, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in June 2004.

Funds requested for Fiscal Year 2004 will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,000,000
Reconnaissance Phase (Federal)	0
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase is scheduled for completion in June 2004. The feasibility study completion is to be determined.

San Joaquin River Basin, West Stanislaus County Orestimba Creek Sacramento District	2,197,000	1,313,000	584,000	300,000	0

The study area is located in Western Stanislaus County approximately 20 miles southwest of Modesto, California. The city of Newman and the surrounding agricultural lands suffered significant losses from flooding in 1998, 1995, 1986, 1983, and 1980. In March 1995, Newman experienced the worst flood in its 107-year history. Structures within the town were flooded by over two feet of sediment-laden water. Estimated damages from this event included $1.6 million in agricultural damages and $4.0 million in urban damages, for a total of approximately $5.6 million. Riparian habitat for the endangered Valley Elderberry Longhorn Beetle has also been affected by flooding in the area. Over the past 50 years, changes to the topography and drainage patterns have occurred with the construction of the Delta Mendota Canal, the California Aqueduct and Interstate 5.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: San Joaquin River Basin, West Stanislaus County, Orestimba Creek (cont'd)

These changes have significantly affected hydrology and sediment yields entering the creeks in this area, contributing to increased flooding. Alternatives being considered include a flood attenuation basin, bypass channel, and channel improvements. A feasibility report is scheduled for completion in June 2004. Due to revising the scope of the West Stanislaus County Feasibility Study to address specific basin concerns and schedules, the local sponsor, Stanislaus County, requested that the study be separated into two separate studies. The first, West Stanislaus County, Orestimba Creek feasibility study, is scheduled for completion in June 2004. The second, West Stanislaus county, Del Puerto and Salado Creeks feasibility study, is scheduled for initiation following completion of the Orestimba study.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $4,200,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,297,000
Reconnaissance Phase (Federal)	97,000
Feasibility Phase (Federal)	2,100,000
Feasibility Phase (Non-Federal)	2,100,000

The reconnaissance phase was completed in September 1998. The feasibility study is scheduled for completion in June 2004.

San Juan Creek, South Orange County Los Angeles District	1,100,000	0	TBD	100,000	TBD

The study area is located in south Orange County, about 40 miles southeast of Los Angeles, California. The watershed covers approximately 176 square miles. This study was previously funded as part of the overall San Juan Creek Watershed Management Study as provided in the Energy and Water Development Appropriation Act of 2000. The findings of this study indicate a Federal interest in providing solutions to the flood control problems and severe environmental degradation. It will examine flood control, channel stability, environmental restoration, and recreation along San Juan and Trabuco Creeks in Orange

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: San Juan Creek, South Orange County (cont'd)

County, California. Moderate storm flows (approximately a 20-year event) in the winter of 1998 nearly caused levee failure. This levee failure was prevented by floodlight efforts by the Corps of Engineers and the County of Orange. Hydrologic and Hydraulic analysis, completed as part of the San Juan Creek Watershed Management Feasibility Study, has indicated that segments of the downstream portions of the San Juan and Trabuco Creek channels have insufficient capacity to contain flood waters from large flood events. Potential flood inundation, repair, and clean-up equivalent annual costs due to levee overtopping have been estimated to be over $5 million. Additional losses are expected to accrue as a result of levee failure and bridge support damage due to channel instability and downcutting. The County of Orange requested this separate study to address the flood control and environmental restoration problems in South Orange County. The County of Orange, the local sponsor, expressed support for the study in January 2003, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement scheduled to be signed in February 2004.

Fiscal Year 2003 funds are being used to fully fund the reconnaissance phase at full federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2004 funds will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in February 2004. A completion date is to be determined for the feasibility study.

Strong and Chicken Ranch Sloughs Sacramento District	467,000	332,000	85,000	50,000	0

The Strong and Chicken Ranch Sloughs are north-side tributaries to the American River, located about 6 miles east of the Sacramento River in Sacramento, California. Together they drain a 13.9 square mile watershed. They join at the forebay of a

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Strong and Chicken Ranch Sloughs (cont'd)

pumping plant at the north levee of the American River, which was constructed by the Corps of Engineers in 1958 as part of the American River Project. Significant flooding occurs along both creeks, usually during high intensity rainstorms. The dense urban areas adjoining the lower reaches of these two creeks suffered devastating flooding twice in February 1986 and twice in January 1997. Flooding also causes damage at the California Exposition state fairgrounds. The reconnaissance study addressed modifications and improvements to the existing flood control measures. The Sacramento Area Flood Control Agency, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2000.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $734,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$ 834,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	367,000
Feasibility Phase (Non-Federal)	367,000

The reconnaissance phase was completed in June 2000. The feasibility study is scheduled for completion in February 2004.

Sutter County Sacramento District	1,308,000	480,000	TBD	200,000	TBD

The study area is located within the boundaries of the Sacramento River Flood Control Project in Sutter County, California and includes the Sacramento, Feather and Bear Rivers, Sutter and Tisdale Bypass, Yuba City and communities of Live Oak, Meridian, Robbins and Nicolaus. Results from levee evaluation studies on the Sacramento Urban Area, Marysville/Yuba City, Mid-Valley, Lower and Upper Sacramento Area levee reconstruction projects indicate that structural problems caused by on-going seepage exist. The Corps is addressing levee reconstruction under these projects. The reconnaissance study addressed levee improvements beyond reconstruction in these areas and investigated new areas for flood prevention. As a result of the January 1997 floods, high water caused seepage and boils, and a levee break occurred threatening the town of Meridian. In

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Sutter County (cont'd)

addition, seepage and boils were identified on the south levee of the Tisdale Bypass. The levee was stabilized by constructing a stability berm under emergency construction authority. The State of California and Sutter County, the local sponsors, signed the Feasibility Cost Sharing Agreement in March 2000.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,558,000
Reconnaissance Phase (Federal)	58,000
Feasibility Phase (Federal)	1,250,000
Feasibility Phase (Non-Federal)	1,250,000

The reconnaissance phase was completed in March 2000. The feasibility study completion is to be determined.

Upper Penitencia Creek San Francisco District	2,045,000	1,088,000	TBD	460,000	TBD

The study area, extending along 3.6 miles of Upper Penitencia Creek and its watershed, is located in the northwest portion of Santa Clara County, California, adjacent to the city of San Jose. Flooding has occurred in the watershed from Upper Penitencia Creek flows in 1955, 1958, 1962, 1963, 1973, 1980, 1982 and 1983. The 1982 flood, an approximate 10-year event, resulted in over $2 million in damages. The flood plain contains approximately 1,600 properties, that are subject to flood damage. It is estimated that a 100-year flood event would cause $51 million in damage. A study was initiated by the Soil Conservation Service which developed feasibility level plans for flood damage reduction, but the amount of agricultural benefits identified in the analysis was insufficient to permit Soil Conservation Service participation. The Corps of Engineers was requested by the local sponsor to continue the effort. The improvements proposed by the Soil Conservation Service include flood proofing, new levees, floodwalls, bypass channels, channel realignment, grade stabilization and vegetative work in order to provide a 100-year level of flood protection. The reconnaissance study provided a review of the Soil Conservation Service study efforts and identified the remaining tasks to be performed during the feasibility and design

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Upper Penitencia Creek (cont'd)

phases. The Santa Clara Valley Water District, the local sponsor, signed the Feasibility Cost Sharing Agreement in March 1998.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $3,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,745,000
Reconnaissance Phase (Federal)	345,000
Feasibility Phase (Federal)	1,700,000
Feasibility Phase (Non-Federal)	1,700,000

The reconnaissance phase was completed in March 1998. The feasibility phase completion date is to be determined.

White River and Deer Creek Sacramento District	650,000	47,000	TBD	100,000	TBD

The White River, Poso and Deer Creeks reconnaissance phase study, which was initially funded in the Energy and Water Development Appropriations Acts of 1999 and 2000, recommended that the studies continue into the feasibility phase as two separate studies, one as White River and Deer Creek and the second as Poso Creek. The study area is located near the town of Earlimart in Tulare County in central California, along White River and Deer Creek. In January 1981 the Corps prepared a reconnaissance-level report that determined flood control measures for this area to be economically infeasible. However, during the past 20 years, frequency of flooding has greatly increased and extensive land development and improvements have occurred in the area. As a result of the January 1997 floods, State and Federal disaster assistance was granted to the town of Earlimart, which suffered millions of dollars of damage to homes and other structures. State Highway 99, a major artery linking Northern and Southern California, was closed for over a week due to the flooding. This was the fifth time in 40 years that flooding occurred in the area. The reconnaissance study addresses the economic benefits of various alternatives including detention facilities, levees and channels, and floodproofing. The feasibility study will investigate the economic,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: White River and Deer Creek (cont'd)

environmental, social and engineering feasibility of the alternative plans. Tulare County, the potential sponsor, expressed support for the study in November 1999, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase at full Federal expense and, if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,250,000
Reconnaissance Phase (Federal)	50,000
Feasibility Phase (Federal)	600,000
Feasibility Phase (Non-Federal)	600,000

The reconnaissance phase is scheduled for completion in July 2003. The feasibility study completion date is to be determined.

Wildcat and San Pablo Creeks San Francisco District	1,100,000	20,000	TBD	100,000	TBD

The study area is located in the cities of Richmond and San Pablo, California, about 12 miles northeast of San Francisco. Reach 1 of the authorized flood control project was completed by the Corps in 1995, and is located in the city of Richmond. Reach 2, within the city of San Pablo, was not constructed at the time because of concerns about economic justification, and was subsequently placed in the deferred status. Recent flow/frequency projections, and new FEMA floodplains suggest that Reach 2 may be economically justified at this time. The Contra Costa County Flood Control District, the local sponsor, expressed support for the study in April 2001, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in June 2003.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Wildcat and San Pablo Creeks (cont'd)

Fiscal Year 2003 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in June 2003. The feasibility phase completion date is to be determined.

Colorado

Fountain Creek and Tributaries, North of Pueblo	2,175,000	175,000	TBD	350,000	TBD

Albuquerque District

The study area is located along Fountain Creek and its tributaries in central Colorado. The study area includes the cities of Colorado Springs, Pueblo, Fountain, Manitou Springs, and several other small cities and towns. Constricted channel capacity and encroaching development have contributed to flood damages and environmental degradation in the watershed. Fountain Creek and its tributaries have a long history of flooding, with the most recent events occurring in 1997 and 1999. The flood of record occurred in 1965 when an estimated 47,000 cubic feet per second flow was recorded at Pueblo. Flows of this magnitude occurring today would cause damages in excess of $42 million. In addition, since 1965, continued urban development has significantly increased storm runoff and peak flood discharges in Fountain Creek. The Corps completed a feasibility study in January 1990 addressing the area's flood problems; however, the results of the feasibility study indicated there were no economically feasible flood control alternatives at the time and the study was terminated. Because of increasing flooding problems along Fountain Creek, the City of Colorado Springs has requested a resumption of feasibility

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Fountain Creek and Tributaries, North of Pueblo (cont'd)

level studies of the Fountain Creek watershed. The City, together with the local Council of Governments, is supporting a comprehensive watershed study. The Feasibility Cost Sharing Agreement is scheduled to be signed in April 2003.

Fiscal Year 2003 funds are being used to continue coordination with the local sponsor, execute the Feasibility Cost Share Agreement and continue into the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,175,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

The reconnaissance phase is scheduled for completion in April 2003. A completion date is to be determined for the feasibility study.

Nevada

Las Vegas Wash, North Las Vegas Los Angeles District	1,600,000	28,000	TBD	50,000	TBD

The study area is located along a 12-mile reach of Las Vegas Wash in the northern portion of the Las Vegas metropolitan area from Interstate Highway 15 to the confluence of Monson Channel, North Las Vegas, Clark County, Nevada. Most of the channel in the study area is unimproved, and the remaining portion is only partially improved. Development associated with the rapid urbanization in the area has encroached upon the limited capacity channel. The area is subject to flash flooding, and protection is needed to provide protection to surrounding commercial, residential and public facilities. In addition, several major road crossings are undersized and lack the capacity to pass flood flows safely. A solution is critical to prevent the recurrence of previous flooding problems over the past 30 years which have caused several fatalities, considerable property damage, and impaired emergency access. The study will provide program-level design and development

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Las Vegas Wash, North Las Vegas (cont'd)

parameters for a 12-mile reach of the Las Vegas Wash. The city of North Las Vegas expressed support for the study in December 2001, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in June 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance study is scheduled for completion in June 2003. A completion date is to be determined for the feasibility study.

New Mexico

Española Valley, Rio Grande and Tributaries Albuquerque District	1,230,000	846,000	TBD	50,000	TBD

The Española Valley lies at the confluence of the Rio Grande, Rio Chama, Santa Cruz River, and several lesser streams in north-central New Mexico. Española, the largest community in the valley, is located 85 miles south of the New Mexico - Colorado border and 25 miles north of Santa Fe. Six Indian pueblos are located within the study area. Rapid growth and development along the Rio Grande and its tributaries have increased the potential for flooding in many locations. Eighteen floods, caused by summer rainfall or spring snowmelt, have been recorded within the study area since 1865; the most recent in 1958, 1969, 1970, 1978, 1987 and 1991. The floods of 1969 and 1970 damaged residential and commercial buildings,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Española Valley, Rio Grande and Tributaries (cont'd)

bridges, crops, and irrigation facilities in Española and surrounding towns and Indian Pueblos, causing damages estimated at $2,290,000 and $1,190,000 (October 2002 prices) respectively. A Feasibility Cost Sharing Agreement was signed, and the Feasibility study initiated, in February 1993. An economically justified levee plan was identified with a first cost of approximately $2 million and a benefit cost ratio of 1.8. In September 1996, the feasibility phase was discontinued and reclassified to inactive status due to sponsor difficulties in obtaining real estate assurances from the Santa Clara Indian Nation. Since that time, a new City administration has been successful in coordinating with the Santa Clara Indian Nation and is confident any recommended project can be implemented. The City of Española, the local sponsor, expressed support for resumption of the study in September 2000, and is willing to continue 50-50 cost sharing of feasibility phase studies.

Fiscal Year 2003 funds are being used to continue coordination with the local sponsor. The funds requested for Fiscal Year 2004 will be used to continue coordination with the local sponsor to determine the future scope and direction of the study. The preliminary estimated cost of the feasibility phase is $1,640,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,050,000
Reconnaissance Phase (Federal)	410,000
Feasibility Phase (Federal)	820,000
Feasibility Phase (Non-Federal)	820,000

The reconnaissance phase was completed in February 1993. A completion date is to be determined for the feasibility study.

Santa Fe Albuquerque District	1,000,000	53,000	TBD	225,000	TBD

The study is located in Santa Fe, New Mexico, along the Santa Fe River in north central New Mexico. The study purpose is to determine the Federal interest in providing flood damage reduction, environmental restoration, and watershed planning within the Santa Fe River drainage area. The area has suffered from flooding, erosion, and environmental degradation for many years. Damages have been numerous and costly to the community. Significant flood events in the Santa Fe area have occurred in 1872, 1904, 1914,1921, 1929, 1957, and 1968. Detailed data are available only for the most recent floods of August 1957 and July 1968. During the 1957 flood, extensive bank erosion occurred on Arroyo Mascaras and the Santa Fe River overflowed

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Santa Fe (cont'd)

and damaged streets, bridges, utility lines, and commercial buildings. Newspaper accounts listed damages of $20,000 to buildings and $70,000 to streets and utilities. The 1968 flood caused estimated damages of $400,000. Based on 2002 prices, the total damages for the July 1968 flood would be approximately $5,500,000. Santa Fe County and the City of Santa Fe, the local sponsors, have expressed support for the study, understand the two-phase planning process, and are willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in June 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,900,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	900,000
Feasibility Phase (Non-Federal)	900,000

The reconnaissance phase is scheduled for completion in June 2003. A completion date is to be determined for the feasibility study.

Texas

Northwest El Paso Albuquerque District	1,275,000	707,000	TBD	300,000	TBD

The study area is located in the northwest section of El Paso, Texas. El Paso is in far west Texas and has a population of 515,000. The current population in the study area is about 5,000 and is expected to increase to over 40,000 by the year 2015. The study purpose is to determine the Federal interest in providing a flood control project to protect the northwest area of El Paso. The Corps of Engineers completed other flood control improvements for the western portion of the City of

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Northwest El Paso (cont'd)

El Paso in 1989. Recent rapid development in this area of the City has increased the potential for flooding and related problems. There are approximately 2,000 residences and numerous commercial and industrial structures within the 3,000 acres that are subject to flooding. Intense summer thunderstorms on the west side of the Franklin Mountains cause high flows in several unnamed arroyos that enter the Rio Grande Valley. There is no existing outlet in the valley to convey the flood flows to the Rio Grande. Development has encroached on the arroyos and substantial ponding of flood waters occurs. In September 1987, flows resulting from thunderstorms on the 12.4 square mile drainage area flooded several areas in the northwest section of El Paso and caused over $410,000 damage. The feasibility study is analyzing different flood control alternatives and Floodplain Management Plans. Potential flood reduction measures are expected to include detention dams, diversion structures, and non-structural alternatives. The City of El Paso, the local sponsor, signed the Feasibility Cost Sharing Agreement in December 1998.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,360,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,455,000
Reconnaissance Phase (Federal)	95,000
Feasibility Phase (Federal)	1,180,000
Feasibility Phase (Non-Federal)	1,180,000

The reconnaissance phase was completed in December 1998. A completion date is to be determined for the feasibility study.

Sparks Arroyo Colonia, El Paso County Albuquerque District	600,000	53,000	TBD	235,000	TBD

The study is located along Sparks Arroyo in southern El Paso County, Texas. Sparks Arroyo is in an area of rapidly expanding population, having doubled to 30,000 since 1990. On June 20, 1999, a local thunderstorm centered in the study area, caused flooding in the community of Sparks Addition and closed Interstate 10 for two hours. El Paso County, Texas,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
b. Flood Damage Prevention Studies: Sparks Arroyo Colonia, El Paso County (cont'd)					

the local sponsor, expressed support for the study in May 1999, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in April 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	500,000
Feasibility Phase (Non-Federal)	500,000

The reconnaissance phase is scheduled for completion in April 2003. A completion date is to be determined for the feasibility study.

Utah					
Provo and Vicinity Sacramento District	1,510,000	600,000	TBD	100,000	TBD

The study area is located along the Provo River and adjacent area in Provo, Utah, approximately 45 miles south of Salt Lake City. The city of Provo is located just west of the Wasatch Mountain Range. The city has extensive commercial and residential development in the flood plain and is the location of Brigham Young University. The 2000 population of Provo was approximately 105,000. Flooding in Provo is caused by both snowmelt and cloudburst storms which result in frequent flooding in an urban area of the city. During the past 53 years of record, 7 floods have occurred which have been identified as having frequencies of 10-year or larger. In 1983, floods caused $1.3 million in damages. Advanced preparations and a well coordinated emergency flood fighting effort, estimated at a cost of $887,000 in 1983 and $230,000 in

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

b. Flood Damage Prevention Studies: Provo and Vicinity (cont'd)

1984, prevented what would have undoubtedly been very extensive flood damage. Flooding occurred again in 1986, but successful flood fighting activities limited the damages for this event. The most likely plan of improvement for reducing the flood hazard would include detention basins and improved conveyance on streams draining the nearby Wasatch Mountain Range and levee improvements along the Provo River. The City of Provo, the local sponsor, expressed support for the study in February 1998, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. Although a reconnaissance report was completed in April 1997, local drainage projects are being completed by the City prior to continuing with feasibility studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase of the study and, if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,800,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,410,000
Reconnaissance Phase (Federal)	610,000
Feasibility Phase (Federal)	900,000
Feasibility Phase (Non-Federal)	900,000

The reconnaissance phase is scheduled for completion in July 2003. The feasibility study completion date is to be determined.

TOTAL FLOOD DAMAGE PREVENTION STUDIES	30,074,000	6,776,000	669,000	4,261,000	0

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
c. Shoreline Protection Studies: The amount of $300,000 is requested to continue three studies in Fiscal Year 2004.					
California					
Ocean Beach San Francisco District	1,100,000	59,000	TBD	100,000	TBD

The study area is located along the west boundary of San Francisco and acts as a buffer between the Great Highway and the Pacific Ocean. Erosion of the beach threatens the Great Highway and Westside Sewer Transport Facility located beneath the highway. The City of San Francisco currently is protecting the beach and nearby infrastructure by rebuilding the bluffs with new sand each year. This study will evaluate alternatives for a long-term solution to the erosion problem. The City of San Francisco, the local sponsor, expressed support for the study in April 2001, understands the two phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,000,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in May 2003. The feasibility phase completion date is to be determined.

San Clemente Shoreline Los Angeles District	950,000	427,000	TBD	100,000	TBD

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

c. Shoreline Protection Studies: San Clemente Shoreline (cont'd)

The study area is located on the Pacific Coast of Southern California, south of the city of Los Angeles and approximately 59 miles north of the city of San Diego. The city of San Clemente is experiencing a continuous loss of shore protection and recreational beach width. Over the past 20 years, average beach widths have been gradually reduced to about 50 feet. Storm induced waves have become a serious threat over the past several years to coastal residential and commercial properties which include the city of San Clemente's Marine Safety Building, public restroom facilities located on the beach, lifeguard stations, parking areas, and paving near the pier. Due to chronic beach erosion, the railroad corridor between the bluff and the beach is threatened by undermining. As a preventive measure, Orange County Transportation Authority has been selectively placing riprap stones along the most critical segment between North Beach and the Marine Safety Building to reduce wave impacts on the railroad tracks. This maintenance practice of adding additional stones to the existing under-designed revetment has cost an average of $200,000 to $300,000 over every three-year period. The study will investigate alternatives to provide shoreline protection. The City of San Clemente, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2001.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $1,700,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,800,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	850,000
Feasibility Phase (Non-Federal)	850,000

The reconnaissance phase was completed in September 2001. A completion date is to be determined for the feasibility study.

Ventura and Santa Barbara Counties Shoreline Los Angeles District	2,100,000	448,000	TBD	100,000	TBD

The study area includes approximately 150 miles of Pacific Ocean coastline located in Ventura and Santa Barbara Counties, California. There is insufficient data of the coastal processes along this area to provide any proposed shoreline protection or storm damage reduction studies and/or projects. The study will define the coastal processes, by expanding the Coast of

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
c. Shoreline Protection Studies: Ventura and Santa Barbara Counties Shoreline (cont'd)					

California Storm and Tidal Wave Study into Ventura and Santa Barbara Counties. It will involve a multiyear data collection and analysis effort, and assess the coastal processes and numerically modeling future shoreline changes. The study will result in a comprehensive regional sand management plan, with identification of major sand sources for the purpose of beach nourishment activities. The Beach Erosion Authority for Control Operations and Nourishment, the local sponsor, expressed support for the study in September 2002, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in June 2003.

Fiscal Year 2003 are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,700,000
Reconnaissance Phase (Federal)	500,000
Feasibility Phase (Federal)	1,600,000
Feasibility Phase (Non-Federal)	1,600,000

The reconnaissance phase is scheduled for completion in June 2003. A completion date is to be determined for the feasibility study.

TOTAL SHORELINE PROTECTION STUDIES	4,150,000	934,000	0	300,000	0

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: The amount of $10,448,000 is requested to continue forty-four studies and complete three studies in Fiscal Year 2004.

Arizona

Agua Fria River Los Angeles District	2,100,000	75,000	TBD	150,000	TBD

The study area is along the Agua Fria River, a tributary of the Gila River flowing from north to south in the western portion of the Phoenix metropolitan area in Maricopa County, Arizona. The study reach is approximately 30 miles long from New Waddell Dam to the confluence of the Gila River including its tributaries from the White Tank Mountains, New River and Skunk Creek. This area has experienced a 65 percent increase in population over the last decade and has the fastest growth rate in greater Phoenix. By 2020, 60 percent of the housing in Phoenix is expected to be in this area with an additional 1.6 million residents. This high rate of growth has caused a loss of native species and habitat. Damages have been attributed to the effects of dense invasive species in the river channel and lateral channel migration. Non-structural method will be emphasized. The study will address ecosystem restoration, flood control, recreation, water supply through groundwater recharge, and incidental water quality issues related to restoration. The study will also evaluate the feasibility of a significant wildlife corridor that would preserve sensitive habitats and cultural resources, maintain existing recreational uses, and allow for future recreational uses. The Flood Control District of Maricopa County, the local sponsor, expressed support for the study in May 2001, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Agua Fria River (cont'd)					

The reconnaissance phase is scheduled to be completed July 2003. A completion date is to be determined for the feasibility study.

Navajo Nation, AZ, NM, UT Los Angeles District	1,100,000	100,000	TBD	130,000	TBD

The study area is located in our nation's largest Indian Reservation, which includes portions of the states of Arizona, New Mexico, and Utah. It covers approximately 26,000 square miles of high desert and mountains. Physically, it is a remote, sparsely populated landscape that experiences severe local summer storms that bring violent flooding to the river valleys. The San Juan and Little Colorado River drainage basins are the two major watersheds draining the reservation and enter the Colorado River in northern Arizona. The river channels within these drainage basins are dry throughout the year except during the summer and winter rains. Floods have damaged homes and industries as well as public facilities that are essential to the survival of the local communities. Extensive erosion accompanies these catastrophic events, with floodwaters diminishing precious agricultural and range lands, and damages public utilities. The local communities consist generally of small housing structures and facilities. The March and December 1978 floods and associated damages resulted in a Presidential disaster declaration for this degraded area. Flash floods from 1964 to 1968 attributed to 15 deaths. The Navajo Nation is experiencing rapid population growth coupled with both urbanization and industrialization. This study will assess previous flood damage to residential, commercial, agricultural, and environmental resources, and evaluate both structural and nonstructural measures in consideration of reducing flood damages through floodplain mapping and analysis, restoration of riparian vegetation, and wellhead protection measures. The Navajo Nation expressed support for the study in December 2001, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of the feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in August 2003.

If the reconnaissance report is certified to be in accord with policy, Fiscal Year 2003 funds will be used to initiate the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Navajo Nation (cont'd)

The reconnaissance phase is scheduled for completion in August 2003. A completion date is to be determined for the feasibility study.

Pima County Los Angeles District	3,125,000	633,000	TBD	300,000	TBD

The study area is located in Pima County and encompasses the metropolitan area of Tucson, the second largest city in Arizona, Town of Marana and unincorporated Pima County. The study will investigate water resources development opportunities including environmental programs, incorporation of historical cultural features, flood control, and recreation. The study will also address environmentally degraded flood prone areas in conjunction with the Sonoran Desert Conservation Plan completed in October 1998. This plan consists of six elements: ranch conservation, historic and cultural preservation, riparian restoration, mountain parks, habitat, biological and ecological corridor conservation, and critical and sensitive habitat preservation. Organizations such as Defenders of Wildlife, Sierra Club, and civic groups support the conservation plan. Government agencies from local, state and Federal entities are also supportive of this effort. Pima County, City of Tucson and Town of Marana, the local sponsors, signed the Feasibility Cost Sharing Agreement in September 2001.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $6,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	3,000,000
Feasibility Phase (Non-Federal)	3,000,000

The reconnaissance phase was completed in September 2001. A completion date is to be determined for the feasibility study.

Rillito River, Pima County Los Angeles District	1,775,000	590,000	TBD	300,000	TBD

The Rillito River is located in southeast Arizona within Pima County and flows through the city of Tucson, the second largest city in Arizona. The study will focus primarily along the river and the vicinity between Craycroft Road and Country Club Road. The study will investigate water resources development opportunities including, environmental programs,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Rillito River, Pima County (cont'd)

incorporation of historical cultural features, flood control, and recreation. Emphasis is to be placed on environmentally-degraded flood-prone areas. Pima County Department of Transportation Flood Control District, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 2001.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $3,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,375,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	1,600,000
Feasibility Phase (Non-Federal)	1,600,000

The reconnaissance phase was completed in September 2001. A completion date is to be determined for the feasibility study.

Rio Salado Phoenix Reach (Oeste) Los Angeles District	2,125,000	721,000	TBD	250,000	TBD

The study area is located in the city of Phoenix, Arizona, along 8 miles of the Salt River from 19th Avenue to 83rd Avenue, downstream (west or oeste) of the ongoing Rio Salado project. The Rio Salado, Salt River, reconnaissance study, determined a Federal interest in restoration of riparian habitat in conjunction with water quality along 30 miles of the river. The feasibility phase will address this specific 8-mile-portion of the river between 19th Avenue and 83rd Avenue in the city of Phoenix. The study will examine restoration of riparian habitat, in conjunction with flood control, water quality and recreation purposes in and along the Salt River. The study area, which has experienced degradation of wetlands and riparian vegetation within the river, is located in an arid and urban environment. The population growth of Maricopa County has continued to increase the demand for water supply, water quality, environmental quality, water-related recreation and flood protection. The City of Phoenix, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2001.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $4,000,000,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Rio Salado Phoenix Reach (Oeste) (cont'd)

which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,125,000
Reconnaissance Phase (Federal)	125,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

The reconnaissance phase was completed in June 2001. A completion date is to be determined for the feasibility study.

Santa Cruz River (Paseo de las Iglesias) Los Angeles District	1,900,000	833,000	TBD	152,000	TBD

The Santa Cruz River (Paseo de las Iglesias) is located in southeast Arizona, within Pima County. The river flows through the city of Tucson, which is the second largest city in Arizona. The study will focus primarily along the river and the vicinity between the Tohono O'odham Nation, San Xavier District northern boundary line and downstream to Congress Street. The study will investigate the feasibility of a low-flow bank protection, incorporating historic, cultural, flood control, recreation, water resources, and environmental programs. There is a possibility for periodic discharge of Central Arizona Project water into the Santa Cruz River, which may allow for the creation of significant environmental restoration and enhancement of riparian habitat. Pima County Department of Transportation Flood Control District, the local sponsor, signed the Feasibility Cost Sharing Agreement in January 2001.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Santa Cruz River (Paseo de las Iglesias) (cont'd)

Total Estimated Study Cost	$3,685,000
Reconnaissance Phase (Federal)	115,000
Feasibility Phase (Federal)	1,785,000
Feasibility Phase (Non-Federal)	1,785,000

The reconnaissance phase was completed in January 2001. A completion date is to be determined for the feasibility study.

Va Shly-Ay Akimel Salt River Los Angeles District	2,475,000	810,000	TBD	370,000	TBD

The Va Shly-Ay Akimel (pronounced va sha lay akmore) study area is located along approximately 18 miles of the Salt River on the Salt River Pima-Maricopa Indian community between Granite Reef Dam and Price Drive Bridge, in Maricopa County, Arizona. The study is directly upstream of the Rio Salado Tempe Reach Project. The City of Mesa and the Salt River Pima-Maricopa Indian Community have entered into a partnership to restore the Salt River in the east valley. The study will address restoration opportunities and identify measures that restore valuable environmental resources, restore Salt River riparian habitat and wetland habitat, improve water quality through natural filtration in constructed wetlands, as a component of an overall restoration project. The Salt River Pima-Maricopa Indian Community and City of Mesa, the local sponsors, signed the Feasibility Cost Sharing Agreement in September 2001.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $4,750,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,850,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,375,000
Feasibility Phase (Non-Federal)	2,375,000

The reconnaissance phase was completed in September 2001. A completion date is to be determined for the feasibility study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: (cont'd)					
California					
Aliso Creek Mainstem Los Angeles District	935,000	185,000	TBD	150,000	TBD

The study area is located in south Orange County, about 40 miles southeast of Los Angeles, California. The watershed covers approximately 36 square miles. This study was previously funded as part of the overall Aliso Creek Watershed Management Study as provided in the Energy and Water Development Appropriation Act of 2000. The findings of this study indicate a Federal interest in providing solutions to the severe environmental degradation and will further examine channel stability, environmental restoration, and recreation along Aliso Creek and tributaries. Channel degradation and flood damage along the mainstem of Aliso Creek and some of its tributaries has caused severe environmental degradation. This degradation has caused increasing monetary and non-monetary losses to adjacent infrastructure and environmental resources. Infrastructure damage in recent years has exceeded $5 million, and is continuing to grow at an increasing rate. The County of Orange requested this separate study to address the specific environmental degradation problems along the mainstem of Aliso Creek. The County of Orange, the local sponsor, expressed support for the spin-off study in January 2003, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of the feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in August 2003.

If the reconnaissance report is certified to be in accord with policy, Fiscal Year 2003 funds will be used to initiate the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $1,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,685,000
Reconnaissance Phase (Federal)	185,000
Feasibility Phase (Federal)	750,000
Feasibility Phase (Non-Federal)	750,000

The reconnaissance phase is scheduled for completion in August 2003. A completion date is to be determined for the feasibility study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
c. Special Studies: (cont'd)					
Arana Gulch Watershed San Francisco District	1,100,000	69,000	TBD	100,000	TBD

The study area is located in Santa Cruz County adjacent to the Port of Santa Cruz, California. The port is experiencing a sedimentation problem with their north harbor that lies at the terminus of the watershed. The loss of material to the watershed creates a substantial dredging problem for the port. This study will evaluate potential plans of improvement which could help alleviate navigation problems at the port, as well as address environmental degradation of the watershed. The Santa Cruz Port District, the local sponsor, expressed support for the study in April 2001, understands the two phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,000,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in May 2003. The feasibility phase completion date is to be determined.

Arroyo Seco Watershed Los Angeles District	2,100,000	80,000	TBD	150,000	TBD

The Arroyo Seco Watershed encompasses approximately 22 square miles within the cities of Pasadena and Los Angeles, California in central Los Angeles County, and drains into the Los Angeles River near Elysian park. Rapid development and

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Arroyo Seco Watershed (cont'd)

urbanization in the watershed has aggravated flowing in the area and has degraded wildlife habitat and water quality. The study will examine potential federal interest in watershed management, flood control, ecosystem restoration and water quality and supply. The Los Angeles County Department of Public Works, the local sponsor, expressed support for the study in December 2001, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in August 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Total Estimated Study Cost	$4,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

The reconnaissance phase is scheduled for completion in August 2003. A completion date is to be determined for the feasibility study.

Ballona Creek Ecosystem Restoration Los Angeles District	1,600,000	30,000	TBD	150,000	TBD

The study area is located near Marina del Rey, California about 20 miles southwest of the city of Los Angeles. The Ballona Creek study area extends upstream from its outlet to the Pacific Ocean at Marina del Rey to about Culver City, a distance of nine miles. The creek is within a diversely developed urban area and has been environmentally degraded. This area has been degraded by encroachment of non-native plants, trash accumulation and attempts at bank protection along the creek using rock and concrete. The lower watershed is still an important resource for both recreational uses and for fish and wildlife. Further degradation could potentially jeopardize the remaining fish and wildlife habitat within the watershed. The study will evaluate habitat restoration, improvements to water quality, trash mitigation, recreation and related purposes along the lower reach of the Creek. The County of Los Angeles, the local sponsor, expressed support for the study in August 2001,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Ballona Creek Ecosystem Restoration (cont'd)

understands the two phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $3,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,500,000
Feasibility Phase (Non-Federal)	1,500,000

The reconnaissance phase is scheduled for completion in July 2003. A completion date is to be determined for the feasibility study.

Laguna De Santa Rosa San Francisco District	1,975,000	415,000	TBD	150,000	TBD

The Laguna De Santa Rosa is a tributary to the Russian River and is located approximately 13 miles west of Santa Rosa, California. Historically, this area has served as a 7,000-acre storm detention basin during flooding of the Russian River and is a valuable coastal fresh water wetland. During the past decade, several high floods in the Russian River have reduced the ability of the Laguna De Santa Rosa to function as a major flood basin, due to suspected siltation. Thousands of acres of wetlands habitat have been lost or degraded. The study will investigate and evaluate solutions to this siltation problem, to restore both the storm detention function and wetland character of the area. The Sonoma County Water Agency, the local sponsor, signed the Feasibility Cost Sharing Agreement in February 2000.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $3,750,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Laguna De Santa Rosa (cont'd)

which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,850,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,875,000
Feasibility Phase (Non-Federal)	1,875,000

The reconnaissance phase was completed in February 2000. The feasibility phase completion date is to be determined.

Lake Elsinore Environmental Restoration Los Angeles District	720,000	70,000	TBD	50,000	TBD

The study area is located in the city of Lake Elsinore at the end of the San Jacinto River, in western Riverside County, California. This study was previously funded as part of the overall San Jacinto River study as provided in the Energy and Water Development Appropriations Act 2001. The findings of this study indicate a federal interest on determining the viability of the environmental restoration and the development of wetlands in the back basin of Lake Elsinore. High nutrients from the San Jacinto watershed reaching the lake, causes significant algae growth resulting in negative odors, aesthetics and impaired recreational use. The algae causes significant drops in dissolved oxygen levels, resulting in massive fish kills and poor water quality. The lake is also affected by evaporation losses due to its large surface area. Lake Elsinore is an important source of water supply, wildlife habitat, drainage and recreation. The San Jacinto reconnaissance phase study recommended that Lake Elsinore Restoration and San Jacinto River continue into the feasibility phase as two separate studies. The Santa Ana Watershed Project Authority, the Lake Elsinore and San Jacinto Watersheds Authority, the local sponsors, expressed support for the study in September 2000, understand the two-phase planning process, and are willing to consider participation in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Lake Elsinore Environmental Restoration (cont'd)

used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,300,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,370,000
Reconnaissance Phase (Federal)	70,000
Feasibility Phase (Federal)	650,000
Feasibility Phase (Non-Federal)	650,000

The reconnaissance phase is scheduled for completion in May 2003. A completion date is to be determined for the feasibility study.

Los Angeles County Los Angeles District	2,079,000	79,000	TBD	150,000	TBD

Los Angeles River Estuary (Long Beach), Port of Los Angeles, Port of Long Beach, and Marina del Rey are located within the coastal waters of Los Angeles County. All four areas have a need for the removal and disposal of contaminated dredged sediments. The study will address the need for initiation of maintenance and new dredging activities which have been hampered by the unavailability of disposal sites for contaminated dredged material, resulting in negative impacts to safety, environmental health, and economic development. Los Angeles County, Port of Los Angeles, and City of Long Beach, the local sponsors, signed the Feasibility Cost Sharing Agreement in September 2002.

Fiscal Year 2003 funds are being used to initiate the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $4,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,079,000
Reconnaissance Phase (Federal)	79,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Los Angeles County (cont'd)					
The reconnaissance phase was completed in September 2002. A completion date is to be determined for the feasibility study.					
Los Angeles River Watercourse Improvement, Headworks Area, CA Los Angeles District	1,075,000	50,000	TBD	250,000	TBD

This study is located in the southeastern portion of the San Fernando Valley, adjacent to the Los Angeles River in the city of Los Angeles, California. This study was previously funded as part of the Los Angeles River Water Improvement reconnaissance study as provided in the Senate Resolution, June 1969 for Los Angeles County Drainage Area study. The site is a relatively flat parcel adjacent to the Los Angeles River and encompasses 46 acres. Scarce and degraded habitat exists along the River. Birds using aquatic habitats, including waterfowl and shorebirds, use the River as a corridor. Extensive native coastal sage scrub, chaparral, sycamore riparian woodland, and live oak riparian woodland habitats occur south of the site in the Santa Monica Mountains and are limited to the undeveloped areas in the mountains. In the vicinity of the Headworks Area site, there is a potential flooding risk for 100-year or 500-year flood events. Flood risks also occur along the Burbank Western Channel and the Verdugo Wash channel north of the site. The study will evaluate environmental restoration, flood control, and groundwater recharge opportunities. Los Angeles River Watercourse Improvement reconnaissance phase study recommended that the study continue as two separate studies in the feasibility phase (Los Angeles River Watercourse Improvement, Headworks Area) and (Los Angeles River Watercourse Improvement, San Jose Creek). The Los Angeles Department of Water and Power, the local sponsor, expressed support for the study in September 2002, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 funds will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,075,000
Reconnaissance Phase (Federal)	75,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Los Angeles River Watercourse Improvement, Headworks Area (cont'd)					

The reconnaissance phase is scheduled for completion in May 2003. A completion date is to be determined for this feasibility study.

Los Angeles River Watercourse Improvement, San Jose Creek, CA	1,075,000	50,000	TBD	100,000	TBD
Los Angeles District					

The study is located in eastern Los Angeles County on the California State Polytechnic University campus in the city of Pomona, California. The site is located on South San Jose Creek about one mile above its confluence with San Jose Creek, a tributary to the San Gabriel River. This study was previously funded as part of the Los Angeles River Water Improvement reconnaissance study as provided in the Senate Resolution, June 1969 for the Los Angeles County Drainage Area study. Numerous water quality problems exist at the site including ammonia, coliform, algae and nitrates. The university has purchased imported water to dilute nitrates in the campus groundwater supplies. Groundwater levels at the site are experiencing overdraft due to lack of replenishment and over pumping of the groundwater. Scarce and degraded habitat exists in the Los Angeles region. Natural upland habitat of annual grassland, oak woodland, and coastal sage scrub, exist through the region. Flooding occurs periodically downstream of the site. The study will focus on water conservation, water quality, environmental restoration and flood control. Los Angeles River Watercourse Improvement reconnaissance phase study recommended that the study continue as two separate studies in the feasibility phase (Los Angeles River Watercourse Improvement, Headworks Area) and (Los Angeles River Watercourse Improvement, San Jose Creek). California State Polytechnic University of Pomona, the local sponsor, expressed support for the study in August 2002, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of a feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Los Angeles River Watercourse Improvement, San Jose Creek (cont'd)

Total Estimated Study Cost	$2,075,000
Reconnaissance Phase (Federal)	75,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in May 2003. A completion date is to be determined for the feasibility study.

Malibu Creek Watershed Los Angeles District	1,150,000	487,000	TBD	270,000	TBD

The study area is located about 30 miles west of Los Angeles, California. Approximately two-thirds of the 109 square miles are located in northwestern Los Angeles County and the remaining third is in the southeastern portion of the county. Malibu Creek Watershed is within the Santa Monica Mountains and is a mix of urban development and open space. Malibu Creek drains into Malibu Lagoon and the Santa Monica Bay. An existing, obsolete water supply dam, Rindge Dam, does not allow steelhead trout to travel beyond the dam's location into Malibu Creek's tributaries and is blocking the flow of sediment to the ocean and area beaches. The study will focus on environmental restoration of Malibu Creek, and specifically, the potential for removal of Rindge Dam. Removal of the dam could double the trout habitat. The sediment behind the dam could also be used to nourish beaches in the city of Malibu. The study will also develop methods to manage the stream's sediment and water quality to facilitate ongoing efforts to improve the ecosystem in Malibu Lagoon so that it will become a thriving wetland. The California State Department of Parks and Recreation, the local sponsor, signed the Feasibility Cost Sharing Agreement in July 2001.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,100,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Malibu Creek Watershed (cont'd)					
Total Estimated Study Cost	$2,200,000				
Reconnaissance Phase (Federal)	100,000				
Feasibility Phase (Federal)	1,050,000				
Feasibility Phase (Non-Federal)	1,050,000				

The reconnaissance phase was completed in July 2001. A completion date is to be determined for the feasibility study.

Matilija Dam Los Angeles District	2,275,000	844,000	TBD	300,000	TBD

The Matilija Dam is located on Matilija Creek, a tributary to the Ventura River, near the town of Ojai, in Ventura County, California. Ventura County Flood Control District constructed the dam in 1948. The dam itself is no longer functional as a water supply structure, and is identified as a major impediment to the natural flow of the Matilija Creek, which traditionally supported a large population of Steelhead, a migratory fish related to the Salmon, which has recently been placed on the endangered species list. The study will address hydrology, hydraulics, dam safety and removal issues, water allocation, flood control and flood plain management issues, sediment removal, transport and beach nourishment, and environmental restoration. Ventura County Flood Control District, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2001.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $4,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,375,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	2,100,000
Feasibility Phase (Non-Federal)	2,100,000

The reconnaissance phase was completed in June 2001. A completion date is to be determined for the feasibility study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: (cont'd)					
Morro Bay Estuary Los Angeles District	900,000	550,000	100,000	250,000	0

The study area is located in a natural embayment on the central coast of California, about 60 miles north of Point Conception, in the city of Morro Bay, San Luis Obispo County, California. Midway between Los Angeles and San Francisco, Morro Bay serves as the only all-weather small craft commercial/recreational harbor. The harbor and associated wetlands also provide valuable habitat for aquatic wildlife and an important refuge for migratory birds and marine animals. The study will evaluate the significant impacts of sedimentation, tidal circulation, and flushing restrictions which are causing the degradation of valuable wetland and aquatic habitat areas along the Morro Bay Estuary. The County of San Luis Obispo, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2001.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $1,600,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,700,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	800,000
Feasibility Phase (Non-Federal)	800,000

The reconnaissance phase was completed in June 2001. The feasibility study is scheduled for completion in September 2004.

Mugu Lagoon Los Angeles District	1,300,000	839,000	TBD	150,000	TBD

The study area is located in Ventura County, California and is within the jurisdiction of the United States Navy and State of California. The lagoon contains several Federal and State endangered and threatened species. The quality of the lagoon has been degraded due to sediment from Calleguas Creek and related drainage of contaminants from surrounding agricultural and other development. Mugu Lagoon is one of the few wetlands remaining in Southern California and there is a strong Federal and Local interest. The study will evaluate environmental impacts associated with sediment transport, flood flows,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Mugu Lagoon (cont'd)

and upstream watershed land-use practices on Mugu Lagoon. The investigation will also include a preliminary evaluation of habitat conditions and causes of degradation, and develop plans and costs of plans to restore and preserve the lagoon area. Ventura County, the local sponsor, signed the Feasibility Cost Sharing Agreement in November 1999.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,400,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,200,000
Feasibility Phase (Non-Federal)	1,200,000

The reconnaissance phase was completed in November 1999. A completion date is to be determined for the feasibility study.

Napa River, Salt Marsh Restoration San Francisco District	2,877,000	2,083,000	TBD	200,000	TBD

The study area is located in the northern portion of San Francisco Bay, California along the lower reach of Napa River, a Corps maintained navigation project. This low-lying floodplain area has experienced a degradation of environmental resources. Human impacts, including dredged material disposal from the Federal channel, have destroyed most of the original wetlands in the area. The degradation of fish and wildlife resources associated with the loss of these historic wetlands around San Francisco Bay has resulted in several species being listed as threatened or endangered. The study will address environmental protection and restoration in the area with emphasis on restoration of wetlands in the interest of providing habitat for estuarine fish, endangered species, migratory waterfowl and other wildlife. The study will also investigate the application of innovative techniques for wetland restoration similar to those being implemented for the Sonoma Baylands Wetlands Demonstration Project. The California State Coastal Conservancy, the local sponsor, signed the Feasibility Cost Sharing Agreement in March 1998.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Napa River, Salt Marsh Restoration (cont'd)

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $5,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,477,000
Reconnaissance Phase (Federal)	277,000
Feasibility Phase (Federal)	2,600,000
Feasibility Phase (Non-Federal)	2,600,000

The reconnaissance phase was completed in March 1998. The feasibility phase completion date is to be determined.

Napa Valley Watershed Management San Francisco District	2,850,000	419,000	TBD	150,000	TBD

The study area, comprised of 426 square miles, is just north of San Pablo Bay and approximately 40 miles northeast of San Francisco, California. Degradation of the watershed has taken place over the years due to natural and man-made causes. Local state and Federal agencies have formed a workgroup to initiate a planning effort to address this degradation. This study will identify solutions to watershed management issues on the Napa River and tributaries upstream of the city of Napa. The Napa County Flood Control District, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2001.

Fiscal year 2003 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The estimated cost of the feasibility phase is $5,500,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Napa Valley Watershed Management (cont'd)					
Total Estimated Study Cost	$5,600,000				
Reconnaissance Phase (Federal)	100,000				
Feasibility Phase (Federal)	2,750,000				
Feasibility Phase (Non-Federal)	2,750,000				

The reconnaissance phase was completed in June 2001. The feasibility phase completion date is to be determined.

Newport Bay/San Diego Creek Watershed Los Angeles District	1,220,000	875,000	159,000	186,000	0

The study area is located about 40 miles southeast of Los Angeles in Orange County, California, where the San Diego Creek flows into Upper Newport Bay. The creek is a major contributor of sediment to the bay, and local sediment control efforts have had limited success. Hydrologic changes due to rapid development occurring in the watershed are creating problems ranging from flood damage, environmental degradation, habitat loss, water quality, erosion and deposition of sediment. The County of Orange Environmental Agency, the local sponsor, signed the Feasibility Cost Sharing Agreement in April 1999.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to complete the feasibility phase of the study. The estimated cost of the feasibility phase is $2,240,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,340,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,120,000
Feasibility Phase (Non-Federal)	1,120,000

The reconnaissance phase was completed in April 1999. The feasibility study is scheduled for completion in May 2004.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: (cont'd)					
Northern California Streams, Lower Sacramento River Riparian Revegetation Sacramento District	1,970,000	874,000	TBD	200,000	TBD

The study area is located in northern California and includes the mainstem of the Sacramento River downstream from Verona to Collinsville, and Steamboat and Sutter Sloughs. This study, previously funded as the Northern California Streams, Sacramento River Fish Migration study, has been renamed at the request of the local sponsor. The area under study includes about 88 river miles. The salmon runs in the Sacramento River have declined substantially in recent years. More than 70 percent of all salmon caught off the coast of California come from the Sacramento River system. There are four separate runs (spring, fall, late fall, winter) with each run experiencing severe declines in the past 20 years. The winter-run salmon, in particular, has declined nearly 98 percent and is currently listed as endangered under both Federal and State laws. Restoration of shaded riverine aquatic and riparian habitat along the Sacramento River and associated sloughs between Collinsville and American River is the focus of the feasibility study. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement in September 1998.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,700,000 to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,320,000
Reconnaissance Phase (Federal)	620,000
Feasibility Phase (Federal)	1,350,000
Feasibility Phase (Non-Federal)	1,350,000

The reconnaissance phase was completed in September 1998. The feasibility study completion is to be determined.

Orange County, Santa Ana River Basin	1,250,000	151,000	TBD	150,000	TBD

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Orange County, Santa Ana River Basin (cont'd)

Los Angeles District

The study area is the Chino Dairy Preserve Area, located about 60 miles east of Los Angeles, California, in Riverside County, upstream of Prado Dam. The 50 square miles of Chino Dairy Preserve area has the largest concentration of dairy cows (more than 325,000) in the world. Currently, 1.5 million tons of manure cover the ground. Floodwaters regularly flow over the area, diminishing the quality of life for 300 dairy families within the area and washing waste into the Santa Ana River. In February 1998, more than 10,000 cows died as a result of El Nino and lack of flood protection. Losses are estimated over $10.96 million at 2002 price levels. The study will evaluate flooding and the environmental impact to habitat in the Santa Ana River that results from floodwaters containing increased levels of nitrogen and salt from cow manure. The study will also identify other flooding problems and evaluate the environmental impact of hazardous untreated waste being washed into the Santa Ana River by floodwaters. The Orange County, Santa Ana River Basin reconnaissance phase study recommended that the study continue as two separate studies in the feasibility phase, a flood control study (Orange County, Santa Ana River Basin) and an environmental restoration (Prado Basin Environmental Restoration.) The City of Ontario and San Bernardino Flood Control District, the local sponsors, expressed support for the study in October 2001, understand the two-phase planning process and are willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in June 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,150,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,325,000	
Reconnaissance Phase (Federal)	175,000 1/	1/ Excludes $100,000 for the Prado Basin Environmental
Feasibility Phase (Federal)	1,075,000	Restoration reconnaissance phase study.
Feasibility Phase (Non-Federal)	1,075,000	

The reconnaissance phase is scheduled for completion in June 2003. A completion date is to be determined for the feasibility study.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: (cont'd)					
Orange County Shoreline (Lower Santa Ana River Watershed) Los Angeles District	1,710,000	170,000	TBD	100,000	TBD

The study area is located in Orange County, California. This area encompasses shoreline bounded by Bolsa Chica north of Huntington Beach Pier and south of the Newport Harbor entrance, from Seal Beach to Dana Point along the southern California coastline bordered by Los Angeles County to the north and San Diego County to the South. The study will focus on watershed management, minimizing the effects of contaminated urban runoff, beach stabilization and environmental restoration. Ecological deterioration has resulted in significant public health concerns, with repeated beach closures. The County of Orange, the local sponsor, expressed support for the study in March 2001, understands the two-phase planning process, and is willing to consider participation in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2003.

If the reconnaissance report is certified to be in accord with policy, Fiscal Year 2003 funds will be used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility is $3,100,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of cost sharing is as follows:

Total Estimated Study Cost	$3,260,000
Reconnaissance Phase (Federal)	160,000
Feasibility Phase (Federal)	1,550,000
Feasibility Phase (Non-Federal)	1,550,000

The reconnaissance phase is scheduled for completion in March 2003. A completion date is to be determined for the feasibility study.

Pajaro River Basin San Francisco District	1,100,000	94,000	TBD	100,000	TBD

The study area encompasses 1,300 square miles in Monterey, San Benito, Santa Clara, and Santa Cruz counties in central California. The basin extends to the Pacific Ocean at Monterey Bay, about 75 miles south of San Francisco. Flooding occurred in 1995, causing an estimated $6 million in damages, displacement of 3,000 people, as well as the deterioration of

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Pajaro River Basin (cont'd)

riparian and aquatic habitat found in the basin. Federal listing of several species, including the steelhead trout, as endangered is pending. Critical habitat has already been identified for these species in the basin. The study will address the need for flood control and water quality improvements in the basin, ecosystem restoration and other related purposes. The local sponsors, including Santa Cruz County, the city of Watsonville, and the city of Gilroy, expressed support for the study in April 2001, understand the two-phase planning process, and are willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in June 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,000,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in June 2003. The feasibility phase completion date is to be determined.

Prado Basin Environmental Restoration Los Angeles District	650,000	70,000	TBD	100,000	TBD

Prado Basin is located about 60 miles east of Los Angeles, California, in Riverside County. The study was previously funded as part of the Orange County, Santa Ana River Basin reconnaissance study as provided in the Energy and Water Development Appropriations Act, 2002. The study area is approximately 35 square miles, occupied by a group of dairies referred to as the "Chino Dairies", a State of California Agricultural preserve area. The preserve area has the largest concentration of dairy cows in the world, over 325,000. Currently, there is 1.5 million tons of manure on the ground. In January and February of 1998, major flooding inundated the dairies, causing a large amount of water flows over feedlots with significant

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Prado Basin Environmental Restoration (cont'd)

amounts of manure. With the runoff flow from the Chino dairies, there may be a potential of polluted waters containing high concentration of salts and nitrates entering Prado Basin. Urbanization in the City of Ontario, located to the north of the dairies, has increased the amount of runoff onto the dairies effecting water quality. Also, there is rapid spread of Arundo Donax, an invasive plant species, in the Santa Ana River watershed. The study will investigate the control of arundo and provide additional wetlands within Prado Basin by converting 200 to 300 acres of arundo land to open ponds, which will remove nitrates and provide use by waterfowl and shorebirds. The Orange County, Santa Ana River Basin reconnaissance phase study recommended that the study continue as two separate studies in the feasibility phase, a flood control study (Orange County, Santa Ana River Basin) and an environmental restoration (Prado Basin Environmental Restoration). The Orange County Water District, the local sponsor, expressed support for the study in October 2001, understands the two-phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,100,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,200,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	550,000
Feasibility Phase (Non-Federal)	550,000

The reconnaissance phase is scheduled for completion in May 2003. A completion date is to be determined for the feasibility study.

Russian River Watershed San Francisco District	3,603,000	932,000	TBD	150,000	TBD

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Russian River Watershed (cont'd)

The study area consists of the Russian River, which is 110 miles long and flows into the Pacific Ocean about 55 miles north of the entrance to San Francisco Bay. The Corps constructed two multi-purpose reservoirs in the watershed, Lake Mendocino (Coyote Dam) and Lake Sonoma (Warm Springs Dam), and has also constructed other flood control improvements in the area. Problems reported include a significant drop in the water level of the main stem of the river which has caused tributaries to the river to downcut, undermining bridges and exposing water and sewer lines; a lowering of groundwater levels along the floodplain adjacent to the downcut river channel, causing problems for both local water companies and landowners; and current dam operations are believed to have contributed to bank failure, channel scour, and associated loss of both riparian wetlands and private lands. This loss of habitat has affected several species of anadromous fish, now listed as Federal endangered species. The reconnaissance study addressed the effects of flood control improvements on the watershed, restoration of a sustainable riparian ecosystem and anadromous fish habitat, and other beneficial uses. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 2000.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $6,650,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$6,928,000
Reconnaissance Phase (Federal)	278,000
Feasibility Phase (Federal)	3,325,000
Feasibility Phase (Non-Federal)	3,325,000

The reconnaissance phase was completed in June 2000. The feasibility phase completion date is to be determined.

Sacramento-San Joaquin Delta Sacramento District	7,755,000	5,131,000	TBD	1,100,000	TBD

The study area is located in Sacramento, San Joaquin, and Contra Costa Counties, California and extends from Walnut Grove south to Tracy and from the city of Stockton west to Suisun Bay. The area within the Sacramento-San Joaquin Delta consists of about 700,000 acres of land segregated into some 100 tracts and islands, bounded by interconnecting waterways and

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Sacramento-San Joaquin Delta (cont'd)

surrounded by 1,100 miles of levees which normally prevent the lands from being inundated by high tides or high river stages. However, flood protection is inadequate for the islands and tracts within the study area. Over 140 levee failures have occurred in the Delta since 1900. About 30 of these failures have occurred since 1980. Lands within these levees are among the most productive agricultural lands in the State, and failures due to levee instability are becoming more prevalent. The major reasons for this instability are the subsidence of island interiors and poor foundation conditions of existing levees. Also, water quality degradation occurs due to saltwater intrusion resulting from levee failures. Damages from levee failures and costs associated with maintenance work are increasing. The most recent levee failures in the study area were in February 1986, which caused damages estimated at $17 million. The flooding of January 1997 necessitated emergency evacuations of some areas and caused numerous boils, cracks, and seepage problems on several islands and tracts throughout the Delta. Emergency contract repairs in the Delta exceeded $3.5 million. The purpose of the study is to determine a regional plan for flood control, salinity intrusion caused by levee failures, navigation, recreation, fish and wildlife, and long term management of the complex island/waterway network in the Delta. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement (FCSA) in August 1991. The State and the Corps are conducting the cost-shared special study with the goal of producing a regional planning report for flood control, environmental restoration, and navigation. Execution of an amendment to the FCSA in February 1997 initiated Phase 2 activities which included construction of levee test sections on Sherman and Brannan-Andrus Islands to aid in the development of levee design criteria. Further study focusing on specific islands in the Delta will investigate flood protection, ecosystem restoration, and recreation opportunities. An amendment to the FCSA is being negotiated for the increased scope, schedule and cost of this work.

Fiscal Year 2003 funds are being used to amend the FCSA and continue the special study including levee criteria development, geotechnical studies, risk analysis, environmental evaluation, and economic studies. The funds requested for Fiscal Year 2004 will be used to continue the study. The estimated cost of the study is $12,545,000, including $9,580,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests and $2,965,000 for earlier studies at full Federal expense. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$12,545,000
Feasibility Phase (Federal)	7,755,000
Feasibility Phase (Non-Federal)	4,790,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Sacramento-San Joaquin Delta (cont'd)					
The feasibility study completion date is to be determined.					
Sacramento-San Joaquin River Basins Comprehensive Study Sacramento District	19,500,000	16,806,000	TBD	1,020,000	TBD

The study area includes the entire Sacramento River Basin and San Joaquin River Basin in northern and central California, respectively. Numerous projects are within the study including the Sacramento River Flood Control Project, Sacramento River Bank Protection Project, Chico Landing to Red Bluff Project, and the Lower San Joaquin River and Tributaries Project. Reconnaissance studies were pursued under Northern California Streams, Sacramento River Watershed Management Plan and San Joaquin River Main Stem and Tributaries. As a result of the floods of 1997, the studies were combined in order to conduct a comprehensive assessment of the entire flood control system. Local, State and Federal water resource agencies support a coordinated multi-objective investigation to balance flood damage prevention, environmental restoration, and other water resource purposes along the Sacramento and San Joaquin river. The study will provide a long range management program for the Sacramento and San Joaquin Rivers with the objective of improving the flood carrying capacity of the system while restoring and protecting environmental features including wetlands and fish and wildlife habitat. The study will also identify those areas that are generally unsuitable for development. The study will include preparation of a comprehensive post-flood assessment, development of hydrologic/hydraulic models, and formulation of a comprehensive plan for flood damage reduction and environmental restoration. Once completed, this study will provide a framework for a management plan that can be effectively implemented and supported by local, State and Federal agencies. The State of California, the local sponsor, signed the Feasibility Cost Sharing Agreement in February 1998. An amended Feasibility Cost Sharing Agreement was signed in January 2001 to reflect the current cost and schedule.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $34,500,000 of which $4,500,000 is at full Federal expense and $30,000,000 is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Sacramento-San Joaquin River Basins Comprehensive Study (cont'd)					
Total Estimated Study Cost		$34,500,000			
Feasibility Phase (Federal)		19,500,000			
Feasibility Phase (Non-Federal)		15,000,000			

The feasibility study completion date is to be determined.

San Jacinto River Los Angeles District	2,240,000	150,000	TBD	100,000	TBD

The San Jacinto watershed encompasses approximately 730 square miles, which drains into Lake Elsinore in western Riverside County, California. The only major flood control structure on the river consists of levees constructed in 1961 by the Corps in the city of San Jacinto. Only minor channelization exists in the expansive overflow area of the 30-mile reach of river between Lake Elsinore and the city of San Jacinto. Rapid development and urbanization of the area has increased water supply and recreation demands, flood damages and threatened wildlife habitat along the river. Flooding by the river in February 1980 caused major damage to agricultural areas and rendered Interstate Highway 215 and several local arterial transportation routes impassable. The river is an important resource that provides water supply, wildlife habitat, drainage and recreation values to the region. The study will examine environmental restoration, water conservation and water supply, flood control, recreation and related purposes along the San Jacinto River. San Jacinto River reconnaissance phase study recommended that San Jacinto River and Lake Elsinore Environmental Restoration continue into the feasibility phase as three separate studies, however, we will only be proceeding with two of the studies. The Santa Ana Watershed Project Authority, the Lake Elsinore and San Jacinto Watersheds Authority, the local sponsors, expressed support for the study in September 2000, understand the two-phase planning process, and are willing to consider participation in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2003.

If the reconnaissance report is certified to be in accord with policy, Fiscal Year 2003 funds will be used to initiate the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $4,180,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: San Jacinto River (cont'd)					
Total Estimated Study Cost		$4,330,000			
Reconnaissance Phase (Federal)		150,000			
Feasibility Phase (Federal)		2,090,000			
Feasibility Phase (Non-Federal)		2,090,000			

The reconnaissance phase is scheduled for completion in May 2003. A completion date is to be determined for the feasibility study.

San Joaquin River Basin, Cosumnes and Mokelumne Rivers Sacramento District	1,225,000	165,000	TBD	200,000	TBD

The study area is located on the western slope of the Sierra Nevada range in Sacramento, San Joaquin, El Dorado, Amador, and Calaveras Counties approximately 15 miles southeast of Sacramento, California. The study area includes the lower 28-mile reach of the Cosumnes River from the bridge crossing of Dillard Road downstream to the confluence of the Cosumnes and Mokelumne Rivers, and the 17-mile reach of the Mokelumne River from Woodbridge Dam to the confluence with the Cosumnes River. The Cosumnes and Mokelumne River Basins drain into the Sacramento-San Joaquin Rivers. Several reservoirs have been constructed in these basins including Camanche Dam and Reservoir on the Mokelumne River and Sly Park Dam located in the upper reaches of the Cosumnes River. The Camanche Reservoir was constructed by the East Bay Municipal Utilities District. Flood control operations are as prescribed by the Corps of Engineers. Sly Park Dam is operated for water supply only. There are also non-Federal levee systems along the two rivers. During the January 1997 flood, numerous existing private levees failed causing widespread flooding of homes, commercial facilities, and public facilities. There were over 30 levee failures and widespread evacuation of flooded areas. Damages due to failed levees are estimated at over $15 million. Extensive flooding caused both major north-south highways, State Route 99 and Interstate Highway 5, to be closed and rail traffic to be interrupted. Extensive flooding in the area also occurred in 1950, 1955, 1958, and 1986. The lower Cosumnes River basin has been identified as providing excellent wildlife habitat and also provides many ecosystem restoration opportunities. The reconnaissance study evaluated alternatives for ecosystem restoration and flood damage reduction including flood control, non-structural measures, and environmental restoration opportunities in the basins. The State of California expressed support for the study in December 2002. The local sponsor understands the two-phase planning

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: San Joaquin River Basin, Cosumnes and Mokelumne River (cont'd)

process and is willing to participate in 50-50 cost sharing of the feasibility phase of the study. The Feasibility Cost Sharing Agreement is scheduled to be signed in September 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase at full Federal expense and, if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,100,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of cost sharing is as follows:

Total Estimated Study Cost	$2,275,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	1,050,000
Feasibility Phase (Non-Federal)	1,050,000

The reconnaissance phase is scheduled for completion in September 2003. The feasibility study completion date is to be determined.

San Pablo Bay Watershed San Francisco District	2,800,000	1,085,000	TBD	200,000	TBD

The watershed is located within the San Francisco Bay drainage basin in Marin, Sonoma, Napa, Solano and Contra Costa Counties, California. San Pablo Bay is the northern arm of San Francisco Bay. This investigation was initially funded under the authority of Section 503 of the Water Resources Development Act of 1996, as provided in the Energy and Water Development Appropriations Acts of 1998 and 1999. However, based on the desires of the local sponsor, the California Coastal Conservancy, and other interests that support a long term comprehensive plan for management of the watershed, the investigation is now proceeding under the river basin study authority of Northern California Streams as contained in Section 209 of the Flood Control Act of 1962. The California Coastal Conservancy is developing non-regulatory approaches to wetland protection and restoration in conjunction with existing agricultural activities. Within the watershed, there are opportunities to increase the state's wetland acreage by over five percent. Wetlands in the watershed are critically important to migratory waterbirds on the Pacific Flyway and several other endangered species. This study will address

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: San Pablo Bay Watershed (cont'd)

potential Federal participation for environmental restoration of the area. The California Coastal Conservancy, the local sponsor, signed the Feasibility Cost Sharing Agreement in June 1999.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $5,400,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$5,500,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase(Federal)	2,700,000
Feasibility Phase (Non-Federal)	2,700,000

The reconnaissance phase was completed in June 1999. The feasibility phase completion date is to be determined.

Santa Ana River and Tributaries, Big Bear Lake	4,175,000	140,000	TBD	200,000	TBD

Los Angeles District

The study area is located in the San Bernardino Mountains, San Bernardino County, near the headwaters of the Santa Ana River, California. The city of Big Bear is geared towards year-round residents as well as a destination resort with lake sports in the summer and skiing in the winter. The local lake problems are a result of increased sedimentation deposits, which creates excessive noxious aquatic plant growth that contributes to shallow conditions and water quality issues. The study will address these broad ranges of issues and solutions for restoration of aquatic habitat for fish and wildlife, water quality, and flood control capabilities, which will improve public access and recreation opportunities. Big Bear Municipal Water District, the local sponsor, expressed support for the study in January 2002, understands the two phase planning process and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $8,000,000,

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Santa Ana River and Tributaries, Big Bear Lake (cont'd)

which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$8,175,000
Reconnaissance Phase (Federal)	175,000
Feasibility Phase (Federal)	4,000,000
Feasibility Phase (Non-Federal)	4,000,000

The reconnaissance phase is scheduled for completion in March 2003. A completion date is to be determined for the feasibility study.

Santa Clara River, City of Santa Clarita Los Angeles District	2,100,000	88,000	TBD	150,000	TBD

The study area is located in northern Los Angeles and southern Ventura Counties, California. This area encompasses the headwaters of the Santa Clara River, which originates in the mountains of northern Los Angeles County and flows through the Santa Clarita Valley and the city of Santa Clarita and reaches the Pacific Ocean in adjacent Ventura County, a distance of about 50 miles. Rapid urbanization in these areas and its impacts to natural resources has necessitated a unified watershed planning approach. The study will examine alternatives for improvement of the watershed in the form of comprehensive restoration plans. Ventura County, Water Protection District, the potential local sponsor, expressed support for the study in September 2002, understands the two-phased planning process and is willing to participate in a 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested in Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $4,000,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Santa Clara River, City of Santa Clarita (cont'd)

Total Estimated Study Cost	$4,100,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	2,000,000
Feasibility Phase (Non-Federal)	2,000,000

The reconnaissance phase is scheduled for completion in July 2003. A completion date is to be determined for the feasibility study.

Santa Rosa Creek Ecosystem Restoration San Francisco District	1,216,000	793,000	TBD	120,000	TBD

The study area is located in Sonoma County, California, and includes most of the city of Santa Rosa. The watershed drains approximately 80 square miles, including a variety of agriculture, parks and open space, and urban land uses. Santa Rosa Creek, a tributary to the Russian River, was channelized in the 1960s to provide flood control protection to the surrounding city of Santa Rosa. The existing riparian vegetation was cleared, instream debris and boulders were removed, and riprap was placed to armor the creek's banks. The flood control project resulted in habitat loss from the removal of pools, riffles, large boulders and woody debris, all of which provided shelter for fish and wildlife. Without the shading effects of the once extensive tree canopy, the creek's water temperature has significantly increased thereby affecting salmonid survival. This habitat loss has also negatively affected the Federally listed threatened steelhead trout and endangered California freshwater shrimp. The project area for restoration is approximately 6.5 miles of the creek, extending from Railroad Street to the Laguna de Santa Rosa. The City of Santa Rosa, the local sponsor, signed the Feasibility Cost Sharing Agreement in May 1999.

Fiscal Year 2003 funds are being used to continue the feasibility phase of the study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,928,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Santa Rosa Creek Ecosystem Restoration (cont'd)

Total Estimated Study Cost	$2,180,000
Reconnaissance Phase (Federal)	252,000
Feasibility Phase (Federal)	964,000
Feasibility Phase (Non-Federal)	964,000

The reconnaissance phase was completed in May 1999. The feasibility phase completion date is to be determined.

Sonoma Creek & Tributaries San Francisco District	$2,300,000	270,000	TBD	150,000	TBD

The study area is located in Sonoma County, California. The Sonoma Creek watershed drains a 170 square mile area into the northern reaches of the San Francisco Bay estuary. This study was originally funded as part of the overall San Pablo Bay Watershed Management study as provided in the Energy & Water Appropriations Acts of 1998, 1999, 2000, and 2001. The findings of this study indicate a Federal interest in providing solutions to environmental restoration and flood protection to Sonoma Creek and tributaries. Channelization of the creek to increase farming opportunities is believed to have caused increased flooding in the lower watershed. Also, increased erosion and sedimentation in the upper watershed is impacting geomorphic stability. Potential solutions to be considered in the feasibility study are flood plain restoration, setback levees for flood protection and stream restoration, beneficial reuse of dredged material, and geomorphic modifications to protect, restore, and enhance Sonoma Creek and tributaries. The potential magnitude and types of benefits from these actions would include the restoration of over 14,000 acres of tidal, seasonal, and freshwater wetlands; environmental enhancement of 10 to 15 miles of riparian corridor; and protection to over 20 threatened or endangered listed species. Also, potential significant economic and environmental benefits could be realized by providing flood protection linked with ecosystem restoration. The Southern Sonoma Resource Conservation District, the local sponsor, signed the Feasibility Cost Sharing Agreement in May 2001.

Fiscal year 2003 funds are being used to continue the feasibility phase of the study. The funds requested for fiscal year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $4,500,000 which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to 100 percent of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Sonoma Creek & Tributaries (cont'd)					
Total Estimated Study Cost	$4,550,000				
Reconnaissance Phase (Federal)	50,000				
Feasibility Phase (Federal)	2,250,000				
Feasibility Phase (Non-Federal)	2,250,000				

The reconnaissance phase was completed in May 2001. The feasibility phase completion date is to be determined.

Tahoe Basin, California and Nevada Sacramento District	3,000,000	1,000,000	1,000,000	1,000,000	0

The Lake Tahoe Basin watershed is located in the Sierra Nevada Mountains in Northern California and Nevada, approximately 100 miles northeast of Sacramento, California, and 50 miles southwest of Reno, Nevada and covers an area of over 500 square miles. Lake Tahoe has a surface area of about 190 square miles and its average surface elevation above sea level is over 6,200 feet. The basin is highly urbanized with large amounts of concentrated impervious coverage. The Tahoe Basin has a permanent population of about 45,000, however since Lake Tahoe is a popular tourist destination, the tourist population frequently exceeds the number of local residents. Tourist related growth has had significant impacts on the Lake. Riverbed and bank erosion and decreases in flood overflows into the historical flood plains have led to significant losses in water quality, ecosystem diversity, wildlife and fisheries habitat, and endangered and threatened species habitat for species such as the Tahoe Yellow-cress, bald eagle, and the osprey. The principal purposes of the study are to examine water quality, flood control, wetlands habitat, and other environmental restoration opportunities in the Lake Tahoe Basin. The Energy and Water Development Appropriations Act of 2002 directed the Corps to conduct a comprehensive watershed study at full Federal expense to provide a framework for implementing activities to improve environmental quality of the Lake Tahoe Basin. The study will support the ongoing Lake Tahoe Environmental Improvement Program, which consists of Federal, State, and local agencies, to arrest further deterioration of Lake Tahoe. The Environmental Improvement Program is supported by the Tahoe Regional Planning Agency and has the broad support of government, business, environmental advocates and the Washoe Tribe. This special study will include input and support from the Agency and other basin stakeholder groups including the Federal Interagency Partnership and associated non-Federal agencies.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Tahoe Basin (cont'd)

The special study includes four major subject areas. All subject areas either impact or potentially impact water quality, riparian and wetlands habitat, and other environmental restoration components in the Lake Tahoe Basin. The four subject areas include: 1) Development of a work plan to explore alternatives for urban storm water management and impacts to overall lake clarity; 2) Study and development of remedial measures for impacts by groundwater quality to overall lake clarity; 3) Development of a risk assessment and remedial measures for lake clarity impacts caused by wastewater lines in sensitive areas; and 4) Development of a work plan to evaluate impacts and alternatives for stream bank erosion and the associated impact on lake clarity. These study objectives are consistent with previous reconnaissance study efforts for basin-wide environmental quality and restoration opportunities and specific study needs of the local stakeholders.

Fiscal Year 2003 funds are being used to continue the special study. Funds requested for Fiscal Year 2004 will be used to complete the study. The estimated cost of the special study is $3,000,000, which is 100 percent Federally funded. A summary of study costs is as follows:

Total Estimated Study Cost	$3,200,000
Reconnaissance Study (Federal)	200,000
Special Study (Federal)	3,000,000

A reconnaissance study was completed in September 1998. The special study is scheduled for completion in May 2004.

Tijuana River Valley Los Angeles District	1,325,000	309,000	TBD	100,000	TBD

The study area consists of the 1,700-square-mile Tijuana River Watershed, of which approximately 455 square miles are within the United States, mostly within San Diego County, California. The Tijuana River Valley has historically suffered frequent, and sometimes massive flooding in 1969, 1978, 1980, 1983, and 1995 due to the size of the watershed, the lack of comprehensive flood control, and the difficulty of coordinating flood control activities between the United States and Mexico, where over 1200 square miles of the watershed is located. The Corps has investigated flooding problems of the area, including implementation of the border flow diversion structure at San Ysidro. There are no flood warning systems in place in the watershed at this time. There is an increasing flood threat in the watershed due to the tremendous increase in urbanization occurring south of the U.S. border, and lack of comprehensive planning efforts. The study will examine water resource-related problems, including flood control, environmental restoration, stormwater retention, water conservation and

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Tijuana River Valley (cont'd)

supply, and recreation-related purposes along the Tijuana River and tributaries. The San Diego County Water Authority, the local sponsor, expressed support for the study in December 2000, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,325,000
Reconnaissance Phase (Federal)	325,000
Feasibility Phase (Federal)	1,000,000
Feasibility Phase (Non-Federal)	1,000,000

The reconnaissance phase is scheduled for completion in July 2003. A completion date is to be determined for the feasibility study.

Upper Santa Ana River Watershed Los Angeles District	1,955,000	180,000	TBD	150,000	TBD

The Upper Santa Ana River Basin is located in southern California, San Bernardino County and drains approximately 2,255 square miles. The area includes two flood control and water conservation dams, Prado and Seven Oaks. Both San Bernardino and Riverside Counties are fast-growing communities experiencing residential and commercial development. Concerns about potential impacts on the watershed ecosystem, flooding and sedimentation due to the growth and development in these areas have been expressed by local agencies. The study will investigate concerns in the watershed regarding rapid development and impacts on endangered species and habitat, water quality and conservation, flood control, and recreation. San Bernardino Valley Municipal Water District and Santa Ana Watershed Project Authority, the local sponsors, expressed support for the study in October 2001, understand the two-phase planning process and are willing to participate in 50-50 cost-sharing of feasibility phase study. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2003.

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Upper Santa Ana River Watershed (cont'd)

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase. The preliminary estimated cost of the feasibility phase is $3,550,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$3,730,000
Reconnaissance Phase (Federal)	180,000
Feasibility Phase (Federal)	1,775,000
Feasibility Phase (Non-Federal)	1,775,000

The reconnaissance phase is scheduled for completion in March 2003. A completion date is to be determined for the feasibility study.

Westminster, Coyote Creek and Carbon Canyon Creek Watersheds Los Angeles District	1,100,000	100,000	TBD	150,000	TBD

The Coyote Creek and Carbon Canyon Creek Watersheds study areas encompasses approximately 165 square miles, located 25 miles east of Los Angeles in Orange and Los Angeles Counties, California. The study was previously funded as part of the overall Westminster Reconnaissance study as provided in the Energy and Water Development Appropriation Act, 2002. The area is highly urbanized including residential, commercial and industrial development. The creeks vary between rectangular and trapezoidal concrete and riprap channels. Some urban creeks have resulted in significant flooding. This study will evaluate improvements for flood control, ecosystem restoration and water supply. The Westminster reconnaissance phase study recommended that Westminster, East Garden Grove and Westminster, Coyote and Carbon Canyon Creeks continue into the feasibility phase as two separate studies. The County of Orange, the local sponsor, expressed support for the study in June 2001, understands the two phase planning process and is willing to participate in a 50-50 cost sharing of the feasibility study. The Feasibility Cost Sharing Agreement is scheduled to be signed in March 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Westminster, Coyote Creek and Carbon Canyon Creek Watersheds (cont'd)					
Total Estimated Study Cost	$2,100,000				
Reconnaissance Phase (Federal)	100,000				
Feasibility Phase (Federal)	1,000,000				
Feasibility Phase (Non-Federal)	1,000,000				

The reconnaissance phase is scheduled for completion in March 2003. A completion date is to be determined for the feasibility study.

Westminster, East Garden Grove Los Angeles District	1,255,000	145,000	TBD	100,000	TBD

The Westminster watershed study area encompasses approximately 90 square miles and is located about 25 miles southeast of Los Angeles in Orange County, California. This study was previously funded as part of the overall Westminster Reconnaissance study as provided in the Energy and Water Development Appropriations Act, 2002. The area lies on a flat coastal plain, and is almost entirely urbanized with residential and commercial development. In 1974, 1983, 1990's flood damage occurred along the East Garden Grove-Wintersburg Channel estimated at $2.7 million that affected residential, commercial and industrial development within the cities of Santa Ana, Westminster, Huntington Beach and Fountain Valley. Some urban creeks have caused significant flooding in the area. The study will evaluate improvements for watershed management, flood control, ecosystem restoration and water supply. The Westminster reconnaissance phase study recommended that Westminster, East Garden Grove and Westminster, Coyote and Carbon Canyon Creek Watershed continue into the feasibility phase as two separate watershed studies. The County of Orange, the local sponsor, expressed support for the study in June 2001, understands the two phase planning process and is willing to participate in a 50-50 cost sharing of the feasibility study. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase, and if the reconnaissance report is certified to be in accord with policy, continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,140,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of the study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Westminster, East Garden Grove (cont'd)					
Total Estimated Study Cost		$2,325,000			
Reconnaissance Phase (Federal)		185,000			
Feasibility Phase (Federal)		1,070,000			
Feasibility Phase (Non-Federal)		1,070,000			

The reconnaissance phase is scheduled for completion in May 2003. A completion date is to be determined for the feasibility study.

Colorado					
Rio Grande Basin, CO, NM and TX Albuquerque, Fort Worth, and Galveston Districts	2,200,000	599,000	TBD	125,000	TBD

The study will address the water resources needs of the Rio Grande Basin, pursuant to Section 729 of the Water Resources Development Act of 1986 and Section 202 of the Water Resources Development Act of 2000. The Rio Grande Basin is located in the states of Colorado, New Mexico and Texas, and encompasses an area of over 160,000 square miles, from the headwaters of the Rio Grande in central Colorado to its mouth at the Gulf of Mexico near Brownsville, Texas. Water conveyance and delivery, ecosystem degradation, and flooding are major issues in the basin. River flow regulation by nine major dams on the main stem and tributaries for flood control and water delivery has changed the historical flow regime in the Rio Grande. Water is diverted for irrigation, industrial and residential uses. Changes in hydrology, channel configuration, land use activities, and the spread of exotic vegetation have adversely impacted the native riverine ecosystem to the extent that the Rio Grande Silvery Minnow and the Southwestern Willow Flycatcher are now listed as endangered under the Endangered Species Act. This listing is impacting existing flood control and water delivery operations. Another critical issue is the ongoing loss of water supply storage at Elephant Butte Reservoir and Lake Amistad. Unless these losses are addressed, the Rio Grande Basin may lose at least one full year of its drought contingency potential by the year 2050. Many border cities in Texas and Mexico depend on the Rio Grande for water supply. Under international agreements, 60 percent of the Rio Grande water rights below Fort Quitman, Texas belong to Mexico. As a shared resource, it would benefit all users to address regional concerns. Some of the border cities also have rudimentary or non-existent water and wastewater treatment systems, further

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Rio Grande Basin, CO, NM and TX (cont'd)

contributing to the degradation of the environment. The study will evaluate current conditions and make recommendations for improving water management on the Rio Grande in order to improve environmental quality, prevent flooding, and protect the water deliveries required by the Rio Grande Compact and international treaty obligations. Additionally, there is a need to improve reliability of future municipal and industrial and agricultural water supplies and a need to dedicate water (e.g., low flow releases) for environmental purposes such as fish and wildlife restoration and endangered species. Because water supply and flood control in the Rio Grande Basin fall under the management jurisdiction of an international treaty and several Federal, State, and local agencies, the study will identify ways to integrate the programs, policies, and resources of all concerned agencies into a multi-objective water resources plan. Potential sponsors, including the State of New Mexico and the State of Texas, acting through the Texas Water Development Board, expressed support for the study, understand the two-phase planning process and are willing to consider participation in 50-50 cost sharing of feasibility phase studies. The overall study of the Rio Grande Basin has been divided into two major efforts. The first effort, which is now underway, is a comprehensive data collection study focused on the Middle Rio Grande Reach in New Mexico that will provide information necessary to evaluate surface water/groundwater relationships, evapo-transpiration, and endangered species habitat restoration. The second effort will be a larger comprehensive evaluation of the Rio Grande Basin. Activities underway for this portion of the study currently includes ongoing coordination with over 60 stakeholders representing diverse interests along the Rio Grande in New Mexico and Texas. The New Mexico Interstate Stream Commission, the local sponsor for the Middle Rio Grande Comprehensive Data Collection Effort, signed the Feasibility Cost Sharing Agreement in December 2001.

Fiscal Year 2003 funds are being used to continue the feasibility study. The funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of study. The preliminary estimated cost of the study is $3,800,000, which will be shared on a 50-50 percent basis by Federal and non-Federal interests, in accordance with Section 202 of the Water Resources Development Act of 2000. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$4,100,000
Reconnaissance Phase (Federal)	300,000
Feasibility Phase (Federal)	1,900,000
Feasibility Phase (Non-Federal)	1,900,000

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Rio Grande Basin, CO, NM and TX (cont'd)					

The reconnaissance phase for the New Mexico portion of the study was completed in December 2001 and a completion date is to be determined for the cost shared portion of the study. Completion of the overall Rio Grande Basin study is to be determined.

Nevada					
Lower Las Vegas Wash Wetlands Los Angeles District	2,550,000	1,166,000	TBD	50,000	TBD

The study area consists of an approximate eight-mile-reach of Las Vegas Wash where urban wastewater and stormwaters from Las Vegas are adversely impacting this rare and highly-valuable desert wetlands. Lower Las Vegas Wash Wetlands is located immediately southwest of the city of Las Vegas in Clark County, Nevada. Prior to 1970, the Las Vegas Wash had about 2,000 acres of wetlands. With increased flow due to urbanization, the wash has eroded and deepened, preventing water from reaching the wetlands plants and causing their collapse and demise. Today, a rich and extensive area of marshlands, cattails and abundant wildlife has been reduced from 1,400 to 300 acres of wetlands. With each storm, large amounts of soil continue to be eroded, and the limited wetlands and bankside habitat are also being lost. Erosion control measures are needed to restore the wetlands integrity, enhance riparian habitat values, and begin to recapture the past natural characteristics. Recognizing the urgent need to restore this rich biological area, the Nevada Legislature has approved funds to carry out master planning for wetlands restoration in the wash. The expanded reconnaissance study activities were completed January 2001. This additional study allowed the Corps to evaluate more comprehensive problems identified by the local communities Comprehensive Adaptive Management Plan. The Corps is continuing coordination with the potential local sponsor on the future scope and direction of the study. The Feasibility Cost Sharing Agreement is scheduled to be signed in September 2003.

Fiscal Year 2003 funds are being used to continue coordination with local interests and continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,900,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Up to one half of the non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $

d. Special Studies: Lower Las Vegas Wash Wetlands (cont'd)

Total Estimated Study Cost	$4,000,000
Reconnaissance Phase (Federal)	1,100,000 1/
Feasibility Phase (Federal)	1,450,000
Feasibility Phase (Non-Federal)	1,450,000

1/Includes $350,000 initial reconnaissance study cost and $750,000 for expanded reconnaissance study cost.

The reconnaissance study was completed in January 2001. A completion date is to be determined for this feasibility study.

Walker River Basin Sacramento District	1,325,000	325,000	TBD	100,000	TBD

The study area includes the 4,200 square mile Walker River Basin located in western Nevada on the eastern slope of the Sierra Nevada Range about 50 miles east of Lake Tahoe. During years of higher than average snowfall, spring runoff in the Walker River Basin often results in costly damage in the Smith and Mason Valleys, caused largely by the accumulation of snags and other debris in the main channel of the Walker River. Flooding was experienced in January 1997 due to higher than normal snowfall followed by unseasonably warm rainy weather. Flooding occurred in the town of Yerington, in Lyon County, causing temporary closure to area schools and businesses. Over 300 people were evacuated and damages were sustained to agricultural resources and urban and rural structures. Basin-wide damages were estimated at $40 million. Additionally, Walker Lake is becoming increasingly saline caused largely by lower levels of freshwater inflow from the Walker River into the Lake. Many basin wide activities are contributing to the decline of environmental values in the basin. Walker Lake's fishery and other environmental resources have declined dramatically over the last several decades. The State of Nevada, Department of Conservation and Natural Resources, the local sponsor, expressed support for the study in May 1999, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. Although a reconnaissance report was completed in November 1997, local water rights issues and funding plans are being resolved prior to continuing with feasibility studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in July 2003.

Fiscal Year 2003 funds will be used to continue into the feasibility phase of the study. Funds requested for Fiscal Year 2004 will be used to continue the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,000,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Non-Federal share may be in-kind services. A summary of study cost sharing is as follows:

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Walker River Basin (cont'd)					
Total Estimated Study Cost		$2,325,000			
Reconnaissance Phase (Federal)		325,000			
Feasibility Phase (Federal)		1,000,000			
Feasibility Phase (Non-Federal)		1,000,000			

The reconnaissance phase is scheduled for completion in July 2003. The feasibility study completion is to be determined.

New Mexico					
Middle Rio Grande Bosque Albuquerque District	1,150,000	220,000	TBD	225,000	TBD

The study will address ecosystem restoration and recreation needs within the Middle Rio Grande Basin. The Middle Rio Grande Basin is located in central New Mexico from Cochiti Reservoir to Elephant Butte Reservoir, some 180 miles south. The study area within the Middle Rio Grande Basin includes the Bosque along the Rio Grande from the North Diversion Channel through Albuquerque for approximately 14 miles to the South Diversion Channel. The study area encompasses approximately 2500 acres. River flow regulation by Cochiti Dam upstream of the study area has changed the historical flow regime in the Rio Grande. Water is diverted from the river to irrigation, industrial, and residential uses. Changes in hydrology, channel configuration, land use activities, and the spread of exotic vegetation have adversely impacted the native riverine ecosystem to the extent that the Rio Grande Silvery Minnow and the Southwestern Willow Flycatcher are now listed as endangered under the provisions of the Endangered Species Act. The study will evaluate current conditions within the study area and make recommendations in order to improve environmental quality, reduce fire potential, and develop passive recreation opportunities. Middle Rio Grande Conservancy District, the local sponsor, expressed support for the study in May 1999, understands the two-phase planning process, and is willing to participate in 50-50 cost sharing of feasibility phase studies. The Feasibility Cost Sharing Agreement is scheduled to be signed in May 2003.

Fiscal Year 2003 funds are being used to complete the reconnaissance phase of the study at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year 2004 will be used to

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
d. Special Studies: Middle Rio Grande Bosque (cont'd)					

continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $1,600,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$1,950,000
Reconnaissance Phase (Federal)	350,000
Feasibility Phase (Federal)	800,000
Feasibility Phase (Non-Federal)	800,000

The reconnaissance phase is scheduled for completion in May 2003. A completion date is to be determined for the feasibility study.

TOTAL SPECIAL STUDIES	109,285,000	41,850,000	1,259,000	10,448,000	0
e. Comprehensive Studies: None					
f. Project Review Studies: None					
TOTAL SURVEYS CONTINUING	149,774,000	53,454,000	1,928,000	15,700,000	0
TOTAL SURVEYS	149,974,000	53,454,000	1,928,000	15,900,000	0

Study	Total Estimated Federal Cost $	Allocation Prior to FY 2003 $	Allocation FY 2003 $	Tentative Allocation FY 2004 $	Additional to Complete After FY 2004 $
3. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED), NEW:					
4. PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES (PED), CONTINUING:					
a. Navigation: None					
b. Flood Control: None					
c. Shoreline Protection: None					
d. Multiple Purpose Power: None					
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES, CONTINUING	0	0	0	0	0
TOTAL PRECONSTRUCTION ENGINEERING AND DESIGN ACTIVITIES	0	0	0	0	0
GRAND TOTAL - SURVEYS AND PRECONSTRUCTION ENGINEERINGAND DESIGN ACTIVITIES	149,974,000	53,454,000	1,928,000	15,900,000	0

APPROPRIATION TITLE: Construction, General - Channels and Harbors (Navigation)

PROJECT: Oakland Harbor, California (50-ft) (Continuing)

LOCATION: Oakland Harbor is located in the city of Oakland, California, on the eastern shore of central San Francisco Bay immediately south of the San Francisco-Oakland Bay Bridge.

DESCRIPTION: The project consists of deepening the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels, including the respective turning basins, to 50 feet; widening of channels at various locations; and widening of the Inner and Outer turning basins. Approximately 12.8 million cubic yards of excavated dredged material will require disposal. The middle harbor enhancement area (MHEA) will use about 7 million cubic yards to create 190 acres of shallow water and sub-tidal habitat in an area no longer needed for navigation purposes; approximately 2.6 million cubic yards would be placed at the former Hamilton Army Airfield in Novato, California, as part of a separately authorized tidal wetlands restoration project; approximately 2.9 million cubic yards would be disposed at the existing Montezuma Wetlands Restoration Project (MWRP) in the northeast portion of Suisun Bay, and approximately 0.3 million cubic yards would be transported to the Vision 2000 upland site in the inner harbor. Previously authorized deepening of the 4 mile Inner Harbor and 3.4 mile Outer Harbor to 42 feet deep was completed in July 1998.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 8.3 to 1.0 @ 6 7/8.

TOTAL BENEFIT - COST RATIO: 8.1 to 1.0 @ 6 7/8.

INITIAL BENEFIT – COST RATIO: 8.1 to 1.0 @ 6 7/8

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest available evaluation included in the Chief of Engineer’s report approved in April 1999 at 1998 prices.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Appropriation Requirement (COE)		$ 144,000,000		Entire Project	9	TBD
Estimated Appropriation Requirement (USCG)		300,000				
Estimated Total Appropriation Requirement		144,300,000				
Future Non-Federal Reimbursement		700,000				
Estimated Federal Cost (Ultimate)		143,600,000				
Estimated Non-Federal Cost		$ 140,000,000				
Cash Contribution	$ 123,700,000					
Other Costs	15,600,000					
Reimbursements	700,000					
Total Estimated Project Cost		$ 283,600,000				
Allocations to 30 September 2002		12,490,500				
Conference Allowance for FY 2003		TBD				
Allocation for FY 2003		TBD				
Allocation through FY 2003		TBD				
Allocation Requested for FY 2004		7,000,000	1/	1/	The requested amount will be derived entirely from the Harbor Maintenance Trust Fund (HMTF).	
Programmed Balance to Complete after FY 2004		$ TBD				
Unprogrammed Balance to Complete after FY 2004		0				

PHYSICAL DATA

Channels: Deepen the 4 mile Inner Harbor and 3.4 mile Outer Harbor channels to 50 feet; Widen various locations.

Turning Basins: Widen Inner and Outer Basins and deepen to 50 feet.

Habitat: Create 190 acres of shallow water and sub-tidal habitat.

JUSTIFICATION: The Port of Oakland services about 85 percent of all general cargo moving through the Golden Gate, 95 percent of which is containerized. The existing Federal navigation channel serving Oakland Harbor is inadequate for efficient shipping operations and vessel safety as a result of increased vessel traffic and large containerships. Cargo movement by larger vessels is hampered by the need to load to less than full capacity and to wait for high tides to avoid grounding hazards. Annual tonnage handled by the Port amounted to approximately 16 million tons in 2001. The Port terminals are considered to be state-of-the-art. The plan of improvement will provide for further development of the harbors to accommodate the new generation of containerships, improve safety of vessel traffic and provide maximum efficiency of Port operations. The majority of ships presently using the Port have design drafts greater than 35 feet. Sixth generation vessels are now coming on line with drafts of 46 feet or greater (up to 48 feet at the present time). The deep draft fifth and sixth generation container ships experience tidal delays, with the result being that many of the shipping lines either bring those ships into Oakland only partially loaded or choose to bypass Oakland altogether. Limited deepening of the Inner Harbor portion of the project to -38 feet was completed in December 1992 and deepening of the Inner and Outer Harbors to -42 feet was completed in July 1998. Vessels may now depart the Port with some additional cargo, but must still arrive light-loaded. The remainder of the project is needed to allow safe and efficient utilization of the Port. Average annual benefits, all commercial navigation, are estimated at $187,885,000 based on 1998 prices. Depths of 50 feet are required for users to efficiently call at the Port of Oakland presently and in the future.

FISCAL YEAR 2004: The requested amount of $7,000,000 will be applied as follows:

Complete Construction on Inner Harbor Phase 1A	$ 750,000
Initiate Dredging Contract	5,250,000
Planning, Engineering and Design	450,000
Construction Management	550,000
Total	$7,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	$11,700,000	N/A
Modify or relocate utilities, roads, bridges (except railroad bridges) and other facilities, where necessary for the construction of the project.	3,900,000	N/A
Pay 25 percent of the costs allocated to general navigation features for deepening to 45 feet, and 50 percent of the costs allocated to general navigation features for deepening greater than 45 feet during construction, and pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.	59,900,000	$135,000
Pay 25 percent of the costs for beneficial use of dredged material in accordance with Section 204 of the Water Resources Development Act of 1992.	14,500,000	N/A
Pay 100% of the costs for local service facilities.	49,300,000	N/A
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as partially reduced by a credit allowed for the value of lands, easements, rights-of-way, relocations, and dredged material disposal areas provided for commercial navigation.	700,000	N/A
Total Non-Federal Costs	$140,000,000	$135,000

Requirements of Local Cooperation (Continued)

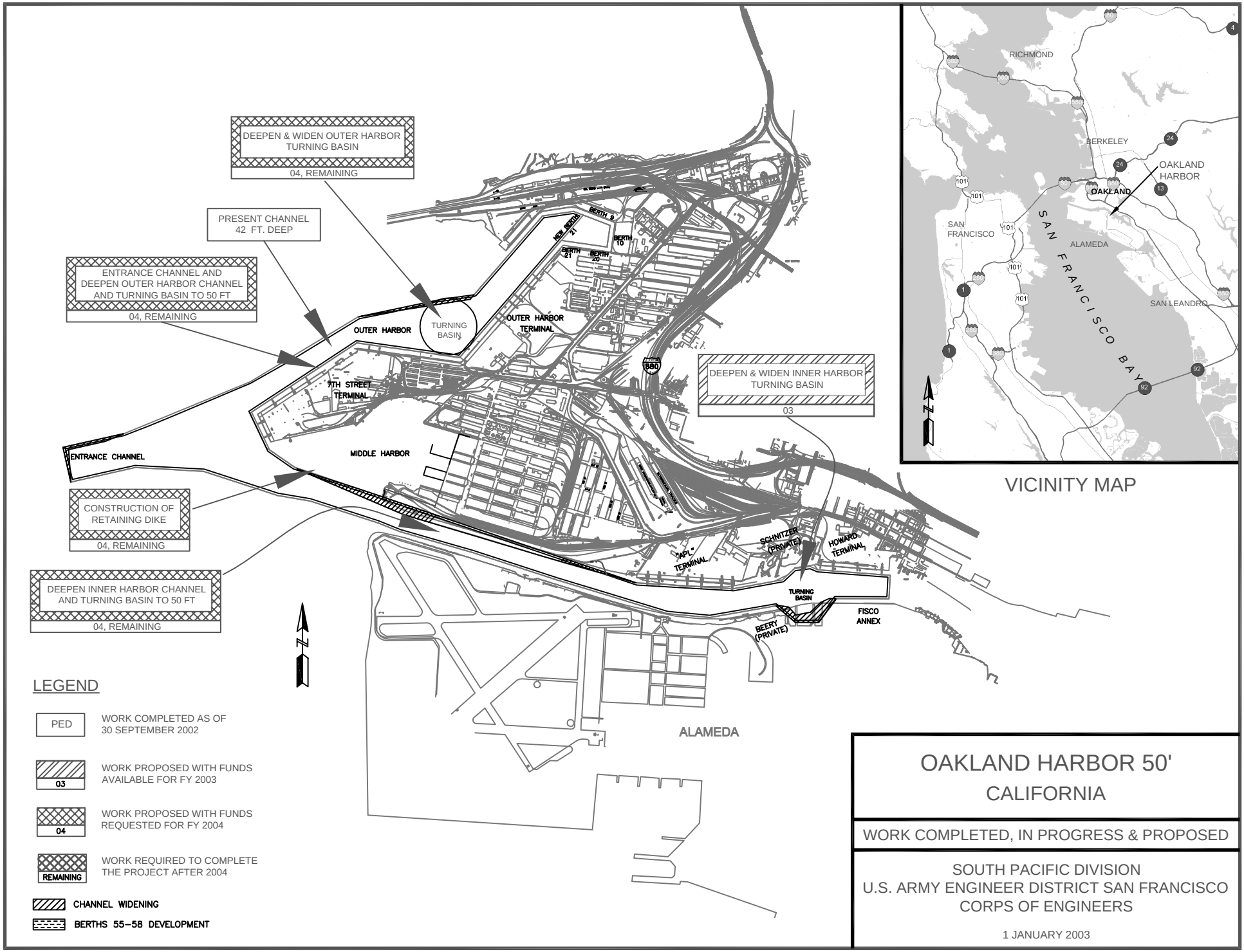
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The non-Federal sponsor, the Port of Oakland, contributed full funding for the feasibility study of the 50 feet deepening of the Inner and Outer Harbor, under the authority of Section 203 of the Water Resources Development Act of 1986. The design agreement was executed on 24 March 1999. The Project Cooperation Agreement was executed on 24 May 2001. The current non-Federal cost estimate of $140,000,000, which includes a cash contribution of $123,700,000, is the same amount reflected in the Project Cooperation Agreement. The non-Federal sponsor has indicated it is financially capable and willing to contribute to the non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $144,000,000 is the same amount as last presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with EPA in May 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001. The initial construction contract was awarded on 27 September 2001.



LEGEND

PED	WORK COMPLETED AS OF 30 SEPTEMBER 2002
03	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
04	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER 2004

CHANNEL WIDENING

BERTHS 55–58 DEVELOPMENT

OAKLAND HARBOR 50'
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SOUTH PACIFIC DIVISION
U.S. ARMY ENGINEER DISTRICT SAN FRANCISCO
CORPS OF ENGINEERS

1 JANUARY 2003

APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: American River Watershed, California (Common Features) (Continuing)

LOCATION: The project area is located in Placer, El Dorado, and Sacramento Counties and is comprised of three principal streams, the North, Middle and South Forks of the American River, which flow westward into Folsom Lake, through the city of Sacramento, and into the Sacramento River.

DESCRIPTION: Recent evaluations indicate that the level of flood protection along much of the American River is less than the 100-year level. The project features consist of modification of the lower American River levees and Sacramento River east levee in the Natomas Basin, modification of Natomas Cross Canal levees, telemetered gages above Folsom Dam, and improving the flood warning system for the lower American River (See OTHER INFORMATION).

AUTHORIZATION: Water Resources Development Acts of 1996 and 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 5.7 to 1 at 7-5/8 percent. (See footnote 1)

TOTAL BENEFIT-COST RATIO: 2.1 to 1 at 7-5/8 percent. (See footnote 1)

INITIAL BENEFIT-COST RATIO: 4.4 to 1 at 7-5/8 percent (FY 1998).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the Supplemental Information Report approved June 1996 at 1995 price levels for work authorized in the Water Resources Development Act of 1996 (WRDA 96).

SUMMARIZED FINANCIAL DATA (See footnote 2)			STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 90,600,000	WRDA 96 Features	58	TBD
			WRDA 99 Features	0	TBD
Estimated Non-Federal Cost		30,000,000	Entire Project	40	TBD
Cash Contribution	$24,630,000				
Other Costs	5,370,000				
Total Estimated Project Cost		$120,600,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2002	$74,027,000	1/	Streamflow Gages - Install 3 new telemetered gages upstream of Folsom Lake (WRDA 96)
Conference Allowance for FY 2003	TBD		
Allocation for FY 2003	TBD		
Allocations through FY 2003	TBD		Flood Warning System – Install on lower American River (WRDA 96)
Allocation Requested for FY 2004	$ 4,000,000		Closure Structure – Install closure structure at Mayhew Drain (WRDA 99)
Programmed Balance to Complete after FY 2004	TBD		Levees:
Unprogrammed Balance to Complete after FY 2004	0		- Construct slurry and jet grout cutoff wall on 19.7 miles of lower American River levees (WRDA 96) - Modify 4.4 miles-American River levees (WRDA 99) - Modify 12.1 miles of Sacramento River levees (WRDA 96) - Modify 10 miles of Natomas Cross Canal levees (WRDA 99)

1/ Includes funding during Preconstruction, Engineering and Design (PED) for project elements authorized in WRDA 96.

JUSTIFICATION: Folsom Dam and Reservoir, located on the American River about 29 miles upstream from Sacramento, are key features in the flood control system protecting Sacramento. Folsom Reservoir has a capacity of 975,000 acre-feet, which includes a minimum of 400,000 acre-feet of space seasonally dedicated to flood control. Currently, Folsom Reservoir is being reoperated to provide additional flood space in some years under an agreement between the United States Bureau of Reclamation and the Sacramento Area Flood Control Agency. At present, the lower American River levees are designed to accommodate releases from Folsom Dam of up to 115,000 cubic-feet/second (cfs). The levees along the American River downstream from Folsom Dam are likely to fail at various locations when sustained flows reach between 130,000 cfs and 160,000 cfs. Levee failure along the lower American River and Sacramento River could result in flooding of more than 100,000 acres, affecting approximately 330,000 residents. Damages could range from $7 billion to $16 billion depending on the magnitude of the event. February 1986 storms filled Folsom Lake and necessitated record releases in excess of design flow downstream. Because of the significant threat, 500 people were put on levee watch as these record flows passed through the city of Sacramento. Due to the February 1986 storms, the Corps of Engineers conducted an extensive flood fighting effort at a cost of $3 million and an additional $10 million was required for post flood repair work.

JUSTIFICATION (Continued)

The storms of January 1997 again filled Folsom Lake and releases reached design flows. A levee watch was issued as lower American River levees were significantly stressed. The common features project consists of levee modification on 19.7 miles of the lower American River and 12.1 miles along the Sacramento River, as authorized by WRDA 96; levee modification along 4.4 miles of the American River, and modification of 10 miles of the Natomas Cross Canal levees, as authorized by WRDA 99; installing new and telemetering existing streamflow gages above Folsom Dam, and implementing a new flood warning system on the lower American River, as authorized by WRDA 96. Improvements authorized in WRDA 96 will reduce the probability of flood damage to about a 1 in 90 chance of flooding in any one year. Improvements authorized in WRDA 99 will decrease the probability of flood damage to about a 1 in 100 chance in any one year. Average annual benefits for work authorized in WRDA 96 and WRDA 99 amount to $42,300,000 (See footnote 1) all flood control, at October 2001 price levels.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Continue Jet Grout construction	$ 3,300,000
Planning, Engineering, and Design	400,000
Construction Management	300,000
Total	$ 4,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below (See footnote 2):

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 5,220,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	150,000	
Pay 21 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	24,630,000	$ 50,000
Total Non-Federal Costs	$ 30,000,000	$ 50,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board and Sacramento Area Flood Control Agency (SAFCA) are the non-Federal sponsors. The Project Cooperation Agreement (PCA) was executed in July 1998 for implementation of project features authorized by WRDA 1996. State of California legislation (AB 1147), enacted 31 August 2000, authorizes the State Reclamation Board to participate in the project for flood control along the American and Sacramento Rivers adopted and authorized by Congress in Section 101 (a) (1) of WRDA 96, as modified by Congress in Section 366 of WRDA 99. On 12 September 2001, the Reclamation Board and SAFCA agreed to cost share the increase in cost to the currently authorized maximum project cost of $120.6 million. Completion of construction of WRDA 1996 Lower American River features and implementation of the WRDA 1999 Lower American River features will require Congressional

STATUS OF LOCAL COOPERATION (Continued)

authorization for a project cost increase and an amendment to the PCA (See OTHER INFORMATION). Based on the current project cost estimate of $120,600,000, the non-Federal cost estimate of $30,000,000, which includes a cash contribution of $24,630,000, is an increase of $13,375,000 from the non-Federal cost estimate of $16,625,000 noted in the Project Cooperation Agreement, which included a cash contribution of $7,390,000. The non-Federal sponsor has indicated it is financially capable and willing to contribute the increasing non-Federal share.

COMPARISON OF FEDERAL COST ESTIMATES (See footnote 2): The current Federal cost estimate of $90,600,000 is the same as the latest estimate presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Supplemental Environmental Impact Statement/Environmental Impact Report was filed with Environmental Protection Agency on 8 March 1996 (see OTHER INFORMATION).

OTHER INFORMATION: Funds used to initiate preconstruction engineering and design of the common elements were allocated in FY 1996 under American River Watershed Project, CA. Preconstruction engineering and design effort for the long-term plan continues under the American River Watershed Project, California.

The American River Watershed Feasibility Report was completed in December 1991 and the Supplemental Information Report was completed in March 1996. The Supplemental Information Report identified three candidate plans which would help reduce the flood risk facing Sacramento: modifying Folsom Dam and increasing the dedicated flood space; modifying Folsom Dam and the downstream system to allow increased objective releases; and constructing a detention dam upstream of Folsom Dam. In June 1996, the Chief of Engineers deferred a decision on a comprehensive flood control plan, but recommended that features common to all three plans be authorized as the first component of a comprehensive plan.

WRDA 1996 authorized construction of the common features. Funds were appropriated in Fiscal Year 1998 to initiate construction. These common features include modification of and telemetering three streamflow gages upstream of Folsom Lake; installing a new downstream flood warning system; constructing a slurry wall in levees on the lower American River; and strengthening and raising levees on the east side of the Sacramento River. Completed WRDA 1996 features include 18.2 miles of slurry wall and 0.3 mile of jet grout work (5 sites) on the lower American River levees and 3 streamflow gages. Remaining WRDA 1996 work includes 1.2 miles of jet grout work (22 sites), the flood warning system, and 12.1 miles of Sacramento River levee modifications. It is estimated that of this remaining work, only 4 of the jet grout sites can be constructed within the current project cost limit.

OTHER INFORMATION (Continued)

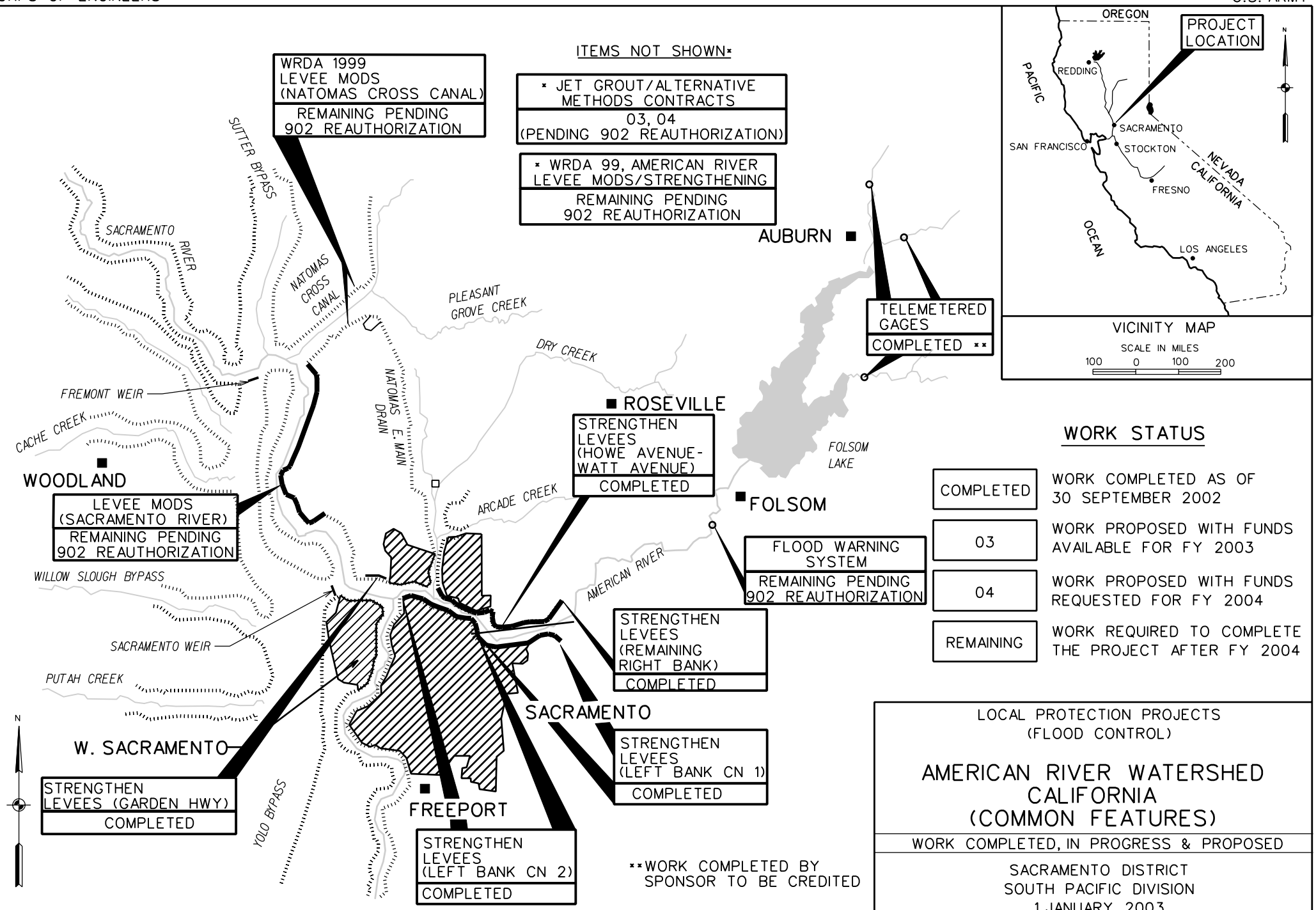
Additional flood control improvements along the lower American River and the Natomas Cross Canal were authorized by Section 366 of the WRDA 1999 as part of the overall project. Improvements include additional levee raising and strengthening along the lower American River and Natomas Cross Canal and installing a closure structure at Mayhew Drain to prevent backup of floodwater. The cost of slurry wall construction authorized by WRDA 1996 has increased significantly due to increased slurry wall quantities, the technical requirement for the more costly jet grout construction method for slurry wall construction around bridges and deep utilities, and several high-cost contract modifications due to slurry leaks during construction. The cost of planning, engineering and design has also increased. Project reauthorization will be required to increase the project cost estimate to complete most of the remaining WRDA 1996 features and all WRDA 1999 features. A post-authorization decision document prepared in March 2002 is currently under review. This document, The Second Addendum to the Supplemental Information Report, includes a substantial increase in the estimated project cost.

Construction of the first contract on the lower American River levees was initiated in July 1998.

Fish and wildlife mitigation costs are currently estimated at $1,670,000.

Footnote 1: Project benefit/cost ratios are preliminary information based upon the Second Addendum to the Supplemental Information Report, currently under review.

Footnote 2: Project costs are for authorized WRDA 96 features based on the June 1996 Chief of Engineers Report, as modified by the Second Addendum to the Supplemental Information Report under review, and as limited by Sec. 902 of WRDA 1986.



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3 February 2003

APPROPRIATION TITLE: Construction, General – Local Protection (Flood Control)

PROJECT: American River Watershed, California (Folsom Dam Modifications) (Continuing)

LOCATION: Folsom Dam and Reservoir, located on the American River, is about 29 miles upstream of the City of Sacramento, California. The American River watershed drains about 2,100 square miles northeast of Sacramento and includes portions of Placer, El Dorado, and Sacramento Counties. Runoff from this basin flows through Folsom Reservoir and passes through Sacramento to the confluence with the Sacramento River.

DESCRIPTION: At present, Folsom Dam is designed to release up to 115,000 cubic feet per second (cfs) during flood operations. The existing eight outlets limit releases to about 36,000 cfs until approximately one half of the reservoir's flood control space is filled. At this level, the pool elevation is sufficient for spillways to release the full 115,000 cfs. The project will modify the existing outlets to allow releases of roughly 115,000 cfs much earlier. The project features consist of: enlarging the eight existing river outlets; adding two new outlets; constructing a stilling basin downstream from the emergency spillway; and modifying the auxiliary spillway gates and dikes at Folsom Dam to normalize the use of surcharge storage. (See OTHER INFORMATION)

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 2.2 to 1 at 6-7/8 percent. (See footnote)

TOTAL BENEFIT-COST RATIO: 1.8 to 1 at 6-7/8 percent. (See footnote)

INITIAL BENEFIT-COST RATIO: 3.4 to 1 at 6-7/8 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the American River Watershed Information Paper dated August 1999 at October 1998 price levels, based on the Supplemental Information Report approved June 1996 at 1995 price levels.

SUMMARIZED FINANCIAL DATA (See footnote)		STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost	$139,600,000	Entire Project	Not Started	TBD
Estimated Non-Federal Cost	75,100,000			
Cash Contribution	75,100,000			
Other Costs	0			
Total Estimated Project Cost	$214,700,000			

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2002	$17,245,000 1/		Enlarge eight existing river outlets
			Construct two new outlets
Conference Allowance for FY 2003	TBD		Construct new stilling basin
Allocation for FY 2003	TBD		Modify dikes and wingdams at Folsom Dam
Allocations through FY 2003	TBD		Increase surcharge space by additional 24,000 acre-feet
Allocation Requested for FY 2004	$ 4,000,000		
Programmed Balance to Complete after FY 2004	TBD		
Unprogrammed Balance to Complete after FY 2004	0		

1/ Reflects partial funding within American River Watershed preconstruction, engineering and design.

JUSTIFICATION: Folsom Dam and Reservoir is a key feature in the flood control system protecting Sacramento. Folsom Reservoir has a capacity of 975,000 acre-feet, which includes a minimum of 400,000 acre-feet of space seasonally dedicated to flood control. Currently, Folsom Reservoir is being reoperated to provide additional flood space in some years under an agreement between the United States Bureau of Reclamation and the Sacramento Area Flood Control Agency. At present, the lower American River levees are designed to accommodate releases from Folsom Dam of up to 115,000 cfs during flood operations. The levees along the American River downstream from Folsom Dam are likely to fail at various locations when sustained flows reach between 130,000 cfs and 160,000 cfs. Levee failure along the lower American River could result in flooding of more than 55,000 acres, affecting approximately 280,000 residents. Damages would range from $7 billion to $13 billion depending on the magnitude of the event. February 1986 storms filled Folsom Lake and necessitated record releases in excess of design flows downstream. Because of the significant threat, 500 people were put on levee watch as these record flows passed through the city of Sacramento. Due to the February 1986 storms, an

JUSTIFICATION (Continued)

extensive flood fighting effort was made by the Corps of Engineers at a cost of $3 million and an additional $10 million was required for post flood repair work. The storms of January 1997 again filled Folsom Lake and releases reached design flows. A levee watch was issued as lower American River levees were significantly stressed. Upon completion of the related American River Watershed, Common Features project, the probability of flood damage in Sacramento will be reduced to about a 1-in-100 chance in any one year. The Folsom Dam Modifications project would reduce the risk of flood damage further to a 1-in-140 chance in any one year. Average annual benefits amount to $30,700,000 (see footnote); all flood control, at October 2002 price levels.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Initiate Outlet Works Contract	$2,750,000
Continue Construction on Emergency Generator/Elevator	600,000
Planning, Engineering, and Design	400,000
Construction Management	250,000
Total	$4,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Acts of 1996, the non-Federal sponsor must comply with the requirements listed below (See footnote):

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide Lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 0	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project.	0	

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 35 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	75,100,000	$ 60,000 2/
Total Non-Federal Costs	$75,100,000	$ 60,000 2/

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

2/ The operation and maintenance (O&M) would continue to be performed by the Bureau of Reclamation. A cost-sharing agreement would be negotiated between the Sacramento Area Flood Control Agency and the Bureau of Reclamation to pay the portion of O&M costs related to the new flood control features.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board and the Sacramento Area Flood Control Agency (SAFCA) are the non-Federal sponsors. The Project Cooperation Agreement (PCA) is scheduled for execution in May 2003. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share. State of California legislation (AB 1147), enacted 31 August 2000, authorizes the State Reclamation Board to participate in the project to modify Folsom Dam adopted and authorized by Congress in Section 101 (a) (6) of WRDA 99.

COMPARISON OF FEDERAL COST ESTIMATES (See footnote): The current Federal cost estimate of $139,600,000 is an increase of $20,000,000 from the latest estimate ($119,600,000) presented to Congress (FY 2003). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$ 8,070,000
Design Changes (2 additional outlets, stilling basin, bulkheads)	5,030,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	6,900,000
Total	$20,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A Supplemental Environmental Impact Statement/Environmental Impact Report (EIS/EIR) was completed and published in the Supplemental Information Report for American River Watershed Project dated March 1996 (SIR). An Environmental Assessment was completed and published in the American River Watershed, California (Folsom Dam Modifications Project) Limited Reevaluation Report dated August 2001. The Finding of No Significant Impact (FONSI) was signed 16 August 2001.

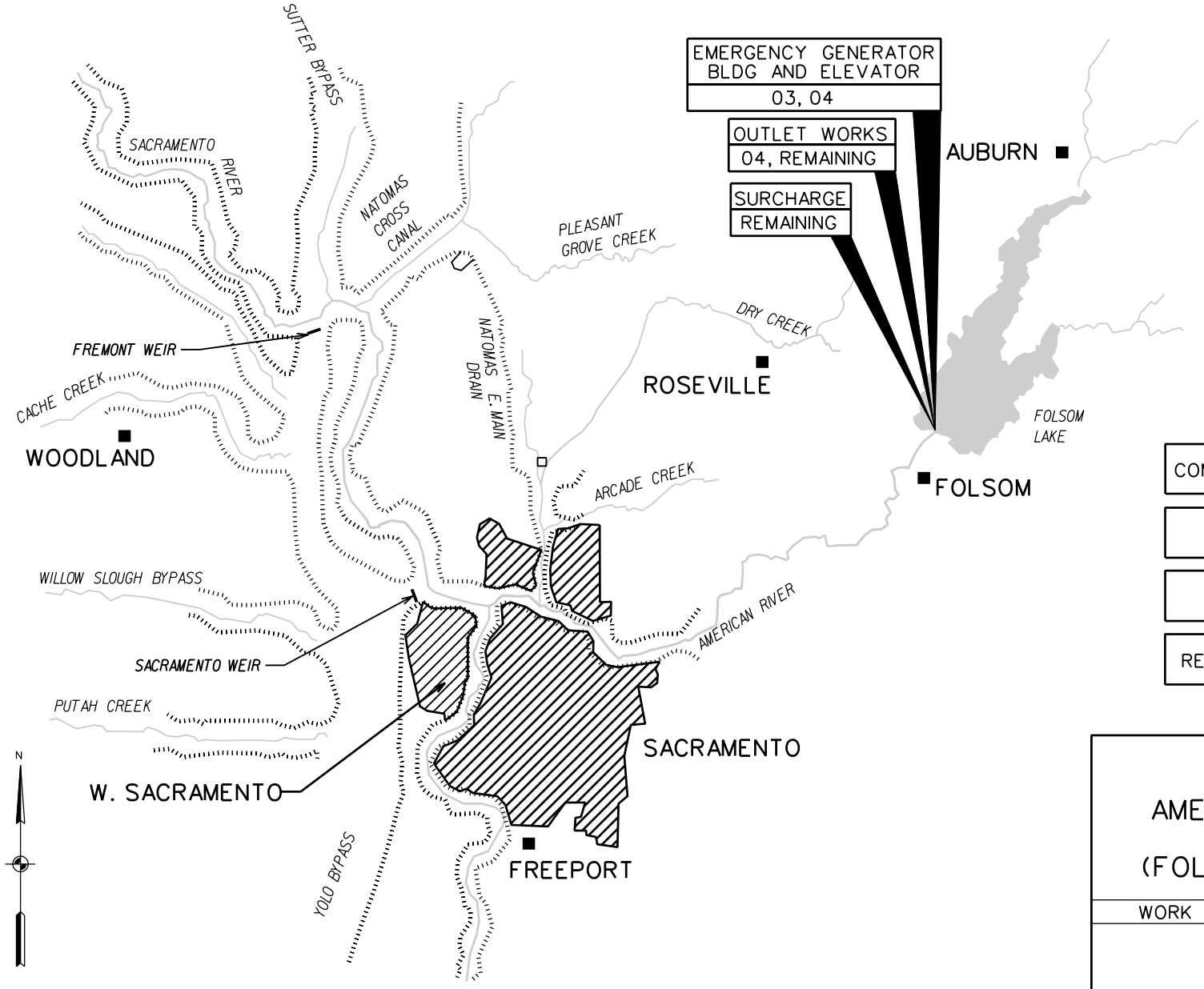
OTHER INFORMATION: Funds used to initiate preconstruction engineering and design of the Folsom Modifications were allocated in Fiscal Year 2000 under the American River Watershed Project, California. Funds to initiate construction were appropriated in Fiscal Year 2001.

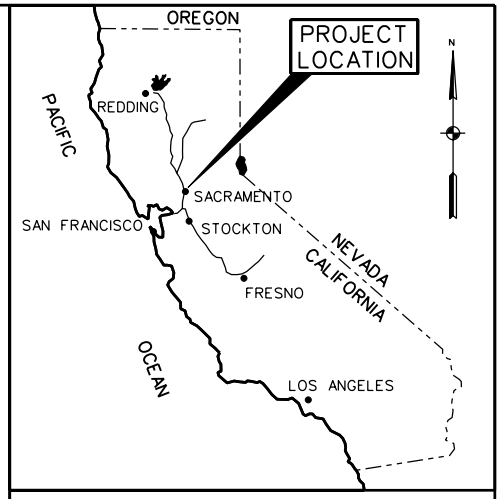
The American River Watershed Feasibility Report was completed in December 1991 and the Supplemental Information Report was completed in March 1996. The Supplemental Information Report identified three candidate plans which would help reduce the flood risk facing Sacramento: modifying Folsom Dam and increasing the dedicated flood space; modifying Folsom Dam and the downstream system to allow increased objective releases; and constructing a detention dam upstream of Folsom Dam. In June 1996, the Chief of Engineers deferred a decision on a comprehensive flood control plan, but recommended that features common to all three plans be authorized as the first component of a comprehensive plan. These elements are being constructed within the American River Watershed (Common Features) Project.

SAFCA prepared the Folsom Dam Modification Report New Outlets Plan dated March 1998 (SAFCA Outlet Report), which identified some proposed changes to the Folsom Modification Plan described in the 1996 Supplemental Information Report. The 1996 Supplemental Information Report as modified by SAFCA Outlet Report was the basis for the project authorized under the Water Resources Development Act of 1999.

Fish and wildlife mitigation costs are currently not expected to be significant.

Footnote: Costs and benefits shown are preliminary information based on the Final Limited Reevaluation Report (LRR) dated August 2001 (revised December 2001) and Supplement to the LRR dated October 2002 (October 2002 price levels), currently under review.





WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2002
03	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
04	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

AMERICAN RIVER WATERSHED CALIFORNIA (FOLSOM DAM MODIFICATIONS)

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

14 January 2003
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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Guadalupe River, California (Continuing)

LOCATION: The project is located in San Jose, Santa Clara County, California.

DESCRIPTION: The authorized plan consists of channel improvements on the Guadalupe River between Interstate Highways 880 and 280, a distance of approximately 2.6 miles with provisions for fish and wildlife mitigation as necessary. The project under construction is the Locally Preferred Plan (LPP). The non-Federal sponsor is responsible to pay 100 percent of the difference in cost between the LPP and the National Economic Development (NED) plan. (See OTHER INFORMATION)

AUTHORIZATION: Water Resources Development Act of 1986 and Energy and Water Development Appropriations Acts for 1990, 1992 and 2002.

REMAINING BENEFIT-REMAINING COST RATIO: 3.8 to 1 at 8-5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 8-5/8 percent.

INITIAL BENEFIT-COST RATIO: 2.2 to 1 at 8-5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the General Design Memorandum dated December 1991 at October 1991 price levels for the NED project. Current benefits are from the General Reevaluation Report (GRR) dated February 2001 at October 2000 price levels for the NED project. The GRR was approved in November 2001.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$128,700,000
Estimated Non-Federal Cost		100,900,000
Cash Contribution	$ 15,400,000	
Other Costs	95,625,000	
Section 104 Credit	- 5,701,000	
Section 215 Credit	- 4,424,000	
Total Estimated Project Cost		$229,600,000 1/

1/ See OTHER INFORMATION

STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	60	TBD

PHYSICAL DATA

Concrete channel	1,510 Feet
Earth channel	27,055 Feet
Box culverts (Bypass Channel)	2,535 Feet
Concrete gabions & mats	4,655 Feet
Excavated bench	6,250 Feet

SUMMARIZED FINANCIAL DATA (Continued)

Allocations to 30 September 2002	$ 68,339,000
Conference Allowance for FY 2003	TBD
Allocation for FY 2003	TBD
Allocations through FY 2003	TBD
Allocation Requested for FY 2004	13,000,000
Programmed Balance to Complete after FY 2004	TBD
Unprogrammed Balance to Complete after FY 2004	0

PHYSICAL DATA (Continued)

	ACCUM PCT OF EST FED COST	
Gabion terraces		4,130 Feet
Recreation trails		17,500 Feet
Recreation riverwalk		13,350 Feet
Concrete retaining wall		1,920 Feet

JUSTIFICATION: The Guadalupe River drains an area of about 160 square miles and its 100-year flood plain encompasses approximately 7,000 acres, including downtown San Jose, and consists of both residential and light industrial development. The 2002 population for the city of San Jose was estimated at 918,000. Flood producing storms have occurred fourteen times since 1945, the most recent in March 1995. The storm of record occurred in December 1955, inundating 8,300 acres and causing approximately $1.3 million in damages in the Guadalupe River drainage basin. Damages from a 100-year flood under 1990 conditions and October 1999 prices would be approximately $576 million (Final GRR February 2001). Flooding also occurred in the January 1995 storm (20-year event), where there was minor out-of-bank flooding in Reach 3. During the March 1995 storm (25-year event), there was substantial street flooding caused by out-of-bank flooding in Reach 3 and a lack of storm drain capacity. During both storms, the I-280/Route 87 freeway interchange was partially inundated, resulting in closure of Route 87. It is believed that project improvements at the I-880 bridge prevented extensive bridge foundation erosion. The project will provide 100-year flood protection to downtown San Jose, including approximately 1,020 commercial, industrial, and public structures, 3,270 private residences, four major traffic arteries, and the San Jose International Airport. Average annual benefits at October 2000 price levels are as follows:

Annual Benefits	Amount
Flood Damage Prevention	$22,614,000
Recreation	3,171,000
Total	$25,785,000

FISCAL YEAR 2004: The requested amount will be applied as follows:

Initiate and Complete Replacement of Railroad Bridge	$2,000,000
Continue Construction of Recreation Facilities in Reach 3	40,000
Continue Construction of Channel Improvements in Reach 3	7,700,000
Continue Construction of Reach 3 Flood Control Structures	1,645,000
Continue Construction of Fish Wildlife Facilities	400,000
Continue Real Estate Certification	15,000
Planning, Engineering, and Design	600,000
Construction Management	600,000
Total	$13,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986 the non-Federal sponsor must comply with the requirements listed below (See OTHER INFORMATION):

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas, which are partially offset by a credit allowed ($5,701,000) for prior work (Section 104 of the WRDA 1986).	$30,021,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary in the construction of the project.	55,479,000	
Pay 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	11,220,000	$1,454,000

Requirements of Local Cooperation (Continued)

	Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay the incremental construction costs for the locally preferred plan.	3,620,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	560,000	943,000
Total Non-Federal Costs	$100,900,000	$2,397,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Santa Clara Valley Water District is the local sponsor for both the flood control portion and the recreation portion of this project. The Local Cooperation Agreements (LCA's) for each were executed 30 March 1992. The current non-Federal cost estimate of $100,900,000, which includes a cash contribution of $15,400,000, is an increase of $28,100,000 from the non-Federal cost estimate of $72,800,000 noted in the Local Cooperation Agreement, which included a cash contribution of $12,200,000. This estimate reflects an update of the amendment to the LCA that was executed in April 2002. The sponsor agrees with current costs and continues to be financially able to support the project. The Santa Clara Valley Water District has applied for credit in the amount of $28,400,000 for completed work under Section 104 of WRDA 1986. The Section 104 Credit Evaluation Report recommended $5,701,000 and was reflected in the flood control LCA. Reimbursement of Section 104 credits was initiated in FY 1993 and was completed in FY 1994 after initiation of a majority of the project construction. The Section 215 Agreement, currently estimated at $4,424,000, was approved in June 2000 and was executed in May 2001. The Santa Clara Valley Water District completed the work described in the Agreement in FY 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $128,700,000 is the same as the latest estimate presented to Congress (FY 2003).

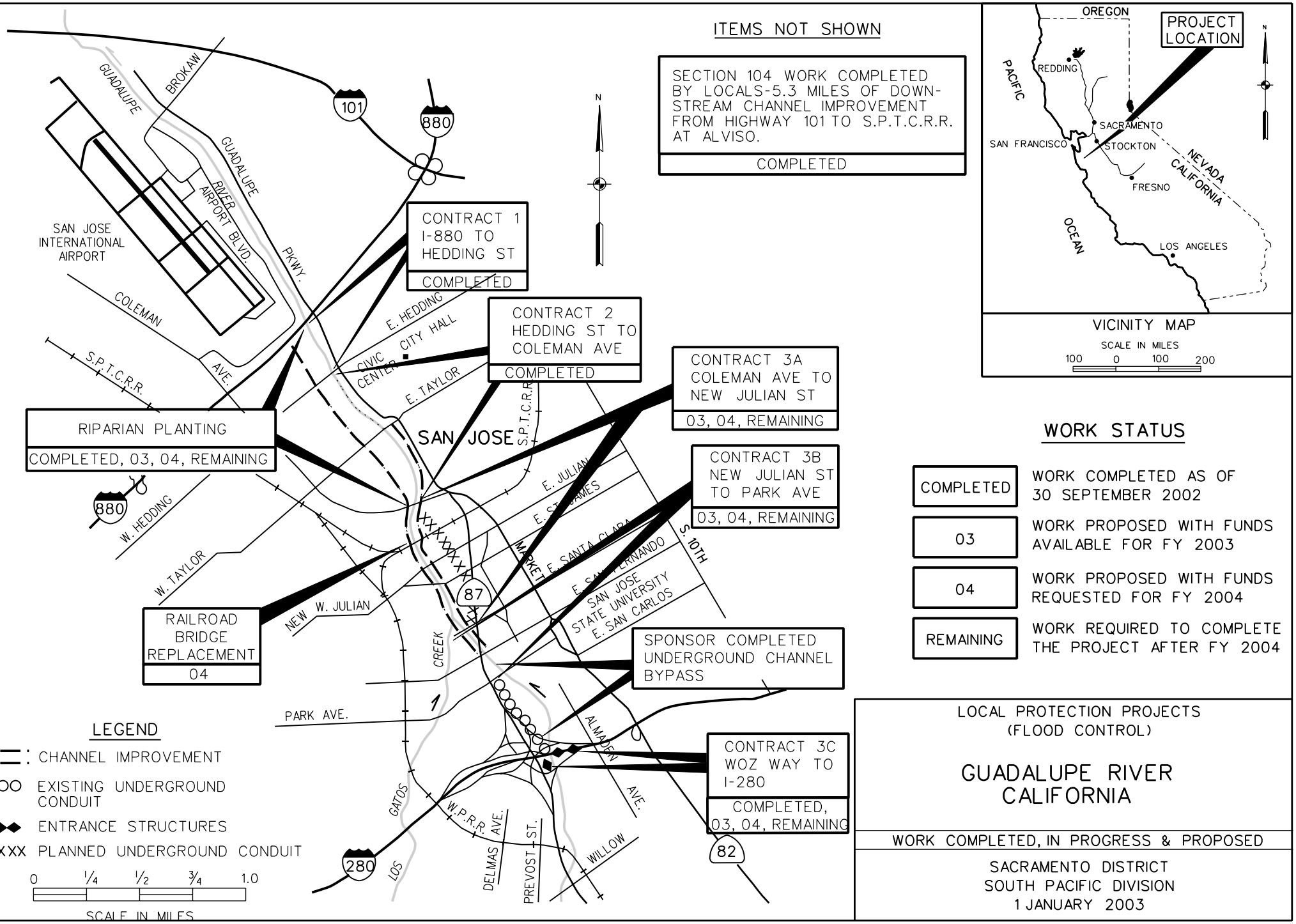
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (FEIS) was filed in October 1986. Environmental Assessments were circulated for public review and comment on the changes to the Feasibility report and FEIS. Results of the review were included in the December 1991 General Design Memorandum (GDM) and the Record of Decision was filed with EPA on 12 February 1992. A Draft Supplemental EIS was submitted in July 2000. The Record of Decision was signed on 16 November 2001. The Final Supplemental EIS supporting the General Reevaluation Report (GRR) was approved on 19 November 2001.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1986 and funds to initiate construction were appropriated in FY 1990.

The Energy and Water Development Appropriations Act, 1990, directed the Secretary to construct the project notwithstanding Section 902 of the Water Resources Development Act of 1986.

The Energy and Water Development Appropriations Act, 1992, directed the Secretary to modify and construct the project in accordance with the December 1991 GDM. While the current plan being implemented differs slightly from the December 1991 GDM Plan, it is consistent with the Guadalupe River Park plan requested by the local sponsor and with cost sharing policy. The Locally Preferred Plan (LPP) is a locally acceptable engineering modification of the authorized plan presented in the July 1985 Feasibility Report/Environmental Impact Statement. It is also the basis for the larger, locally developed, Guadalupe River Park (GRP) Plan. The GRP is a major part of the City of San Jose's current redevelopment plan for the downtown area. The local sponsor, Santa Clara Valley Water District, has agreed to cost share the project in proportion to the National Economic Development Plan (NED), pay all incremental construction costs associated with the LPP, and one-half of the recreation costs.

A General Reevaluation Report (GRR) has been prepared to address impacts to endangered species and water quality. In lieu of widening the natural channel for Reach 3, a bypass channel was recommended to minimize the effects on water quality, endangered species and riparian vegetation. The originally authorized plan could not fully mitigate these impacts. Updated benefits and added costs for required mitigation, lands and relocations were documented in the GRR approved in November 2001. Based on findings of the GRR, Section 106 of the Energy and Water Development Appropriations Act for 2002 re-authorized the project at a total cost of $226,800,000.



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3 February 2003

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Kaweah River, California (Continuing)

LOCATION: The project is located within the Tulare Lake Basin in the southeastern portion of the San Joaquin Valley between the cities of Fresno and Bakersfield, California.

DESCRIPTION: Lake Kaweah/Terminus Dam was completed in 1962, and has provided limited flood protection to Visalia and other rapidly developing urban areas along the Kaweah River. The project plan is to enlarge Lake Kaweah by 42,600 acre-feet by raising the spillway 21 feet to provide additional flood control and water conservation space.

AUTHORIZATION: Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 5.6 to 1 at 7-1/8 percent.

TOTAL BENEFIT-COST RATIO: 1.07 to 1 at 7-1/8 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 7-1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation in the Decision Document approved in December 1999 at 1998 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$27,800,000	Entire Project	40	Sep 2004
Estimated Non-Federal Cost		20,700,000			
Cash Contribution	$ 3,160,000				
Other Costs	18,670,000				
Reimbursements	-1,130,000				
Irrigation Water Supply Federal LERRDs	-1,130,000				
Total Estimated Project Cost		$48,500,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2002	$ 9,799,000		Spillway: Type – Fusegate, Install 6 fusegates (230.4 feet wide) along reconstructed spillway.
Conference Allowance for FY 2003	TBD		Crest height - 715 feet
Allocation for FY 2003	9,601,000		Capacity - Increase by 42,600 to total
Allocations through FY 2003	19,400,000	70	of 183,300
Allocation Requested for FY 2004	$ 8,400,000	100	Downstream and Upstream Mitigation
Programmed Balance to Complete after FY 2004	0		D/S – 1,218 acres - Levee construction on
Unprogrammed Balance to Complete after FY 2004	0		interior of mitigation site
			35 acres – Riparian site
			2.1 acres – Endangered Species site
			U/S – 3,800 acres - Mitigation of oak woodland and riparian plantings

JUSTIFICATION: The Kaweah River originates in the Sierra Nevada mountains and drains about 560 square miles into Lake Kaweah (Terminus Dam). From Lake Kaweah it passes near the city of Visalia, with a population of about 95,800, as it flows west into the Tulare Lakebed. Terminus Dam was completed in 1962 to provide flood control and irrigation water supply. However, significant flood damages to communities and highly developed agricultural lands along the Kaweah River have continued to occur. Flood releases beyond Terminus Dam capacity have contributed to flood damages to agricultural lands in the Tulare Lakebed. The December 1966 rainflood exceeded the design capacity of Terminus Dam and floodflows passing downstream of the dam resulted in about $1.0 million in damages below the dam, under conditions and prices at that time. These downstream flows peaked at about 5,700 cubic feet per second and inundated about 8,000 acres. The most recent flooding in 1983 caused extensive and widespread damages to properties in the Tulare Lakebed area where losses attributed to the Kaweah River were estimated at $17.6 million. The project includes enlarging Lake Kaweah by 42,600 acre-feet. The average annual benefits at 1998 price levels are as follows:

Annual Benefits	Amount
Flood Control	$3,882,000
Water Supply	251,000
Recreation	(293,000)
Employment	109,000
Advanced Bridge Replacement	7,000
Total	$3,956,000

FISCAL YEAR 2004: The requested amount will be applied as follows:

Initiate and Complete Irrigation Lands and Damages	$ 1,130,000
Initiate and Complete Cultural Resource Preservation	100,000
Complete Lands and Damages Certification	70,000
Complete Fusegate Contract	5,900,000
Planning, Engineering, and Design	400,000
Construction Management	800,000
Total	$ 8,400,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas for flood control.	$ 8,870,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project for flood control.	9,190,000	
Pay 35 percent of the costs allocated to agricultural water supply ($4,510,000) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of water supply facilities. (Payment includes $300,000 for lands, $310,000 for relocations, and $970,000 for cash contribution).	1,580,000	$ 12,800

Requirements of Local Cooperation (Continued)

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	1,060,000	119,500
Total Non-Federal Costs	$ 20,700,000	$132,300

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board and Kaweah Delta Water Conservation District are the non-Federal sponsors. The Project Cooperation Agreement was executed on 9 February 2001 (See OTHER INFORMATION).

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $27,800,000 is an increase of $8,100,000 from the latest estimate (19,700,000) presented to Congress (FY 2003). This change includes the following items:

Item	Amount
Price Escalation on construction features	$ 308,000
Design Changes	2,900,000
Post contract Award and other Estimating Adjustments	4,892,000
Total	$8,100,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement (EIS) was filed with Environmental Protection Agency on 11 October 1996. The Record of Decision for the EIS was issued on 19 November 1997. An Environmental Assessment (EA) supporting the Decision Document was approved in April 1998.

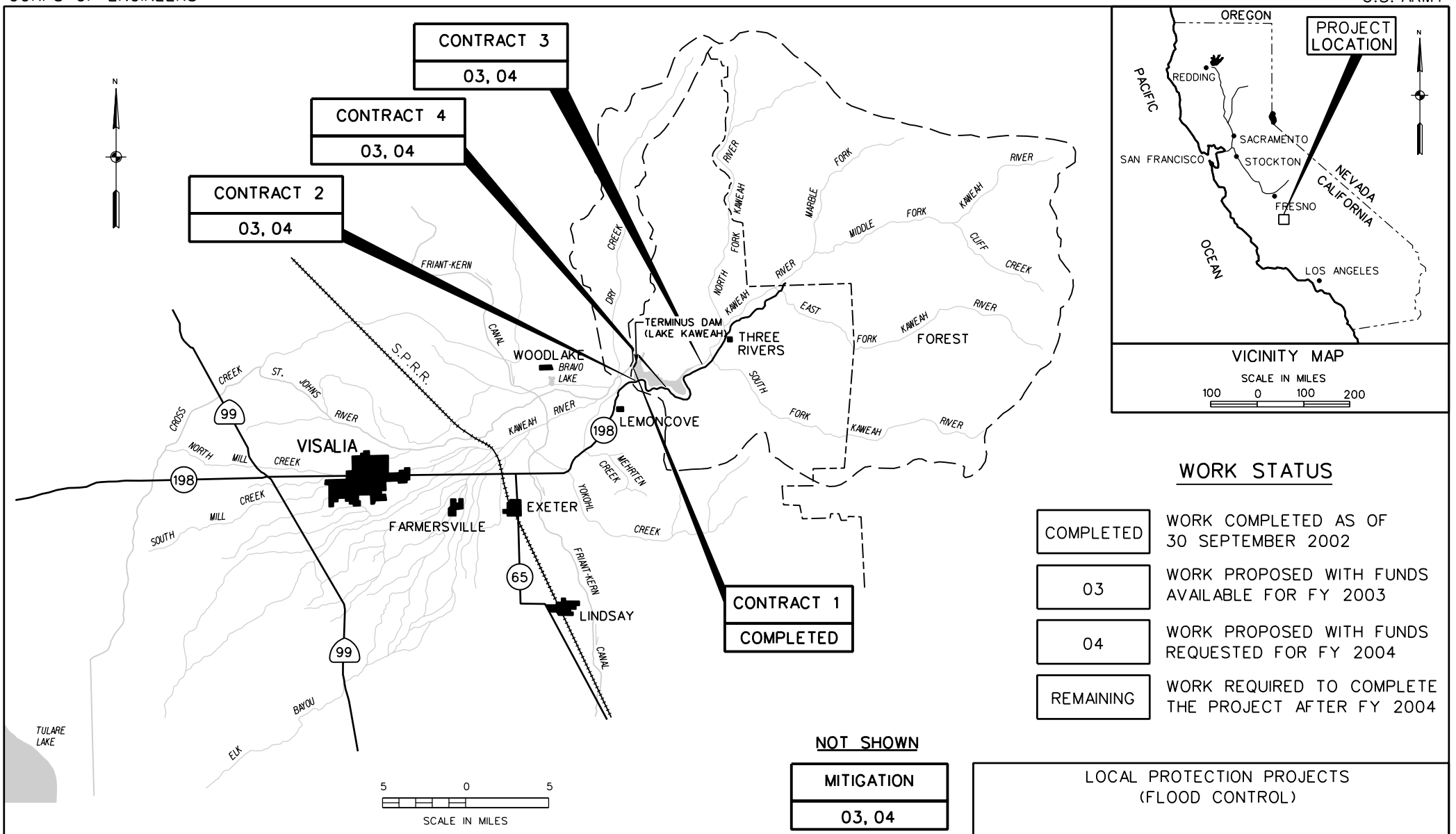
OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were appropriated in FY 1996 and funds to initiate construction were appropriated in FY 2000. During final design, the project’s spillway, mitigation areas, and other project features were modified resulting in a cost decrease and an increase in project benefits.

OTHER INFORMATION: (Continued)

These savings have subsequently been offset by higher sponsor costs for lands and relocations and higher costs for removal of 100,000 cubic yards of rock material from the spillway. Despite these cost increases, the local sponsor continues to strongly support the project and is capable of providing additional resources to complete the project.

Section 307 of the Water Resources Development Act of 1999 authorized the Secretary to accept title for lands required for the project and directs the Secretary and the non-Federal interests to enter into an agreement whereby the Corps of Engineers would be reimbursed by the non-Federal interests for costs associated with operations and maintenance.

The fish and wildlife mitigation cost is estimated at $2,820,000.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2002
03	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
04	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

NOT SHOWN

MITIGATION
03, 04

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

KAWEAH RIVER
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

14 January 2003
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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Marysville/Yuba City Levee Reconstruction, California (Continuing)

LOCATION: The project is located within the boundaries of the Sacramento River Flood Control System in Butte, Sutter and Yuba Counties in north-central California. The area includes the Feather and Yuba Rivers and their tributaries, Sutter Bypass and the cities of Marysville and Yuba City and the communities of Linda and Olivehurst.

DESCRIPTION: An evaluation of about 134 miles of the Sacramento River Flood Control Project levees in the Marysville/Yuba City area identified about 22 miles of levees as being structurally deficient. The project consists of reconstructing those levees by installing toe drains, stability berms, and slurry cut-off walls and backfilling a drainage ditch to rectify the deficiency. The project also consists of restoring levee heights and about 76 acres for fish and wildlife mitigation.

AUTHORIZATION: Flood Control Acts of 1917, 1928, and 1941; River and Harbor Act of 1937.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because project construction is substantially complete.

TOTAL BENEFIT-COST RATIO: 4.8 to 1 at 8-3/4 percent.

INITIAL BENEFIT-COST RATIO: 3.2 to 1 at 8-3/4 percent (FY 1993).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the Sacramento River Flood Control System Evaluation - Marysville/Yuba City Area Budget Decision Document dated February 1991 and revised in May 1991 at 1990 price levels. Current benefits are from the Sacramento River Flood Control Project, California, Marysville/Yuba City Area, Design Memorandum dated January 1993, revised April 1993 and approved in May 1994 at 1992 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 37,300,000	Entire Project	83	TBD
Estimated Non-Federal Cost		12,400,000			
Cash Contribution	$ 4,600,000				
Other Costs	7,800,000				
Total Estimated Project Cost		$49,700,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2002	$31,304,000	
Conference Allowance for FY 2003	TBD	
Allocation for FY 2003	TBD	
Allocations through FY 2003	TBD	
Allocation Requested for FY 2004	500,000	
Programmed Balance to Complete after FY 2004	TBD	
Unprogrammed Balance to Complete after FY 2004	0	

PHYSICAL DATA

Levee Reconstruction:

Toe Drains	- 7 miles
Toe Drains and Levee Height Restoration	- 2 miles
Cut-Off Walls	- 9 miles
Cut-off Walls and Levee Height Restoration	- 3 miles
Levee Height Restoration	4 miles
Fish and Wildlife Mitigation	76 acres
Backfill Drainage Ditch	0.9 mile
Seepage Berm	1 mile
Relief Wells	0.8 mile
Stability Berm	0.8 mile

JUSTIFICATION: Levee evaluation studies of approximately 134 miles of project levees were completed in the Marysville and Yuba City area. Results indicated that structural problems caused by ongoing seepage exist on about 22 miles of levees with inadequate levee height existing on about 10 miles of those levees. Reconstruction is required to maintain the integrity of the existing Sacramento River Flood Control Project. The project will assure the system continues to function as designed. The levees were locally constructed and incorporated into the project levee system when it was authorized in 1917. High flow conditions during the February 1986 storm event resulted in a levee break on the Yuba River, the evacuation of about 24,000 people and about $95 million in flood damages. Additional flood damages of about $2 million were incurred on the Feather and Bear Rivers and about $1 million in post flood levee repair work was required. Flooding also occurred in 1997. Flooding was caused by a levee break along the Feather River below Marysville/Yuba City in the Linda/Olivehurst area, resulting in three fatalities and a reported $82 million in flood damages. The levee system protects about 100,000 people in the Marysville/Yuba City area. Levee failure would result in significant property damages and potential loss of life. Average annual benefits, all flood control, are estimated at $25,530,000 at October 1992 price levels.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Continue Construction on Contract 2D	$ 362,000
Continue Real Estate Crediting	19,000
Planning, Engineering, and Design	89,000
Construction Management	30,000
Total	$ 500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 4,979,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,821,000	
Pay 9 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	4,600,000	$ 0 1/
Total Non-Federal Costs	$12,400,000	$ 0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

1/ Reconstruction will reduce, not increase, annual operation and maintenance costs. Operation and maintenance costs are included in the original Sacramento River Flood Control Project and are the responsibility of the non-Federal interests.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board is the local sponsor for reconstruction work. A Project Cooperation Agreement (PCA) satisfying the requirements of Section 221, Flood Control Act of 1970 (Public Law 91-611) and consistent with the Water Resources Development Act of 1986 (Public Law 99-662) was signed on 19 July 1994. The current non-Federal cost estimate of $12,400,000, which includes a cash contribution of $4,600,000, is an increase of $4,600,000 from the non-Federal cost estimate of $7,800,000 noted in the Project Cooperation Agreement, which included a cash contribution of $1,820,000. The non-Federal sponsor is financially capable and willing to contribute the non-Federal share.

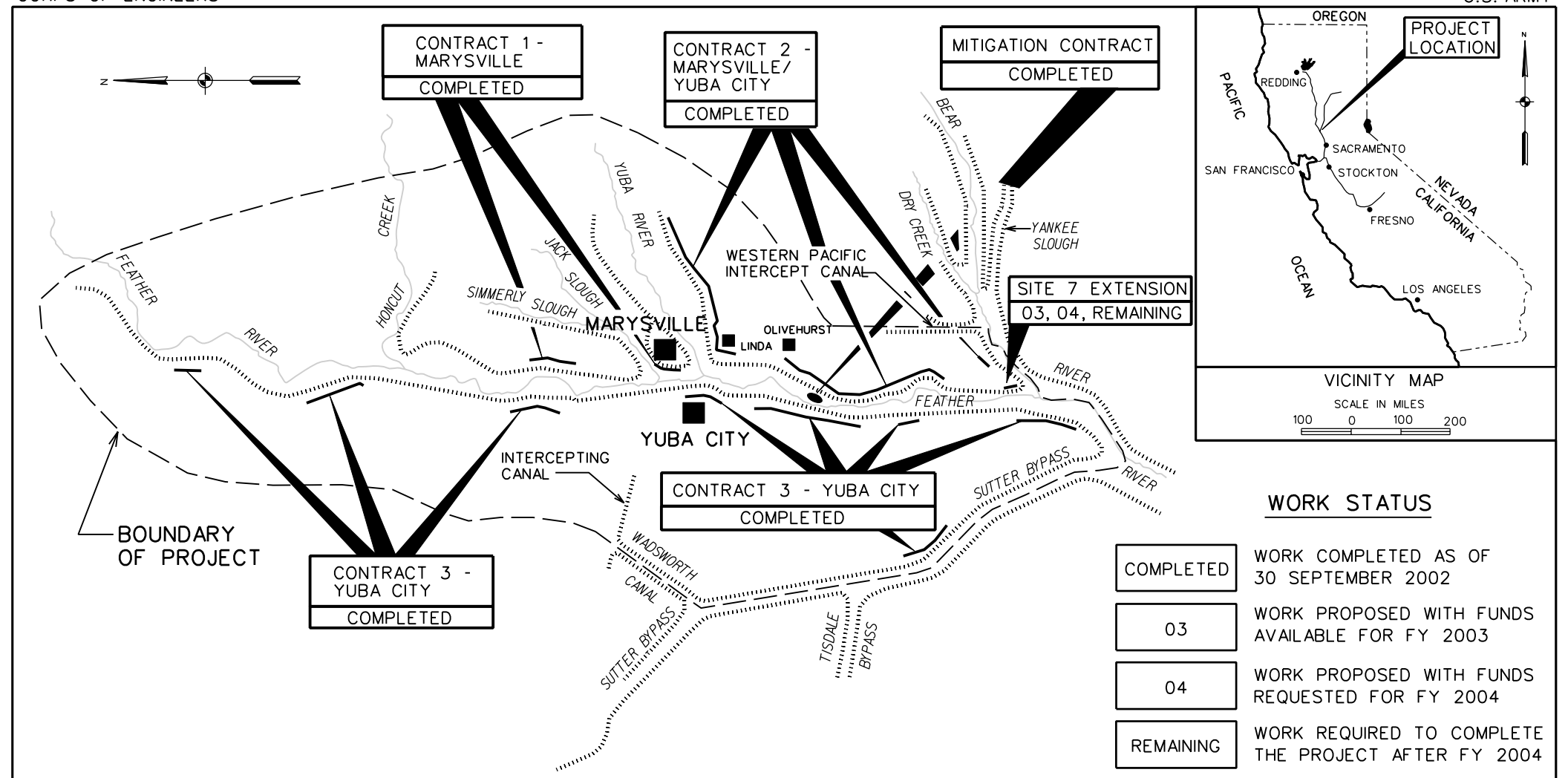
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $37,300,000 is the same as last presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The original Sacramento River Flood Control Project was substantially complete prior to 1970 and an Environmental Impact Statement (EIS) was not prepared. The final Programmatic Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Marysville/Yuba City Area, Mid-Valley area, Lower Sacramento area and Upper Sacramento area, the remaining four phases of the Sacramento River Flood Control System Evaluation, was filed with EPA on 19 June 1992 and the Record of Decision was signed on 4 November 1992. The Programmatic EIS/EIR discusses the environmental impacts resulting from potential work for the entire area in general terms. An Environmental Assessment (EA) was prepared to address the site-specific impacts resulting from the recommended work in the Marysville/Yuba City area in December 1992. A Finding of No Significant Impacts (FONSI) was signed on 28 April 1993.

OTHER INFORMATION: Funds to initiate engineering and design were appropriated in FY 1991 (Sacramento River Flood Control Project, California) and funds to initiate construction were appropriated in FY 1993.

A final Design Memorandum was prepared in January 1993, revised April 1993 and approved in May 1994. In addition to the reconstruction project, the local sponsor is bearing the full cost of local betterments as part of contract 2-Marysville/Yuba City. Based on damages from the January 1997 floods, a Basis of Design Report was prepared to evaluate an extension of Site 7. The report identified work required at Site 7 as 1.8 miles of seepage berm, stability berm, and relief wells. Site 7 extension, Contract 2D, is scheduled for award in May 2003.

The fish and wildlife mitigation cost is estimated at $2,316,000.



VICINITY MAP

SCALE IN MILES
100 0 100 200

WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2002
03	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
04	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

LEGEND

PROJECT LEVEE

LOCATION OF LEVEE RECONSTRUCTION

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

MARYSVILLE/YUBA CITY LEVEE RECONSTRUCTION CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

14 January 2003
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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Mid-Valley Area Levee Reconstruction, California (Continuing)

LOCATION: The project is located within the boundaries of the Sacramento River Flood Control System in Placer, Solano, Sutter, Yolo and Yuba Counties in north-central California. The area includes the Sacramento and Feather Rivers, Knights Landing Ridge Cut, Sutter and Yolo Bypasses and portions of the Bear River including Yankee Slough, Dry, Cache, Putah Creeks and Natomas Cross Canal. Communities in the area include Knights Landing, Robbins, Davis and Woodland.

DESCRIPTION: An evaluation of about 240 miles of the Sacramento River Flood Control Project levees in the Mid-Valley area identified about 18 miles of levees that are structurally deficient. The project includes reconstructing these levees by installing landside berms with toe drains, relocation of ditches, embankment modifications, slurry cut-off walls, and developing land for fish and wildlife mitigation.

AUTHORIZATION: Flood Control Acts of 1917, 1928, and 1941; River and Harbor Act of 1937.

REMAINING BENEFIT-REMAINING COST RATIO: 2.2 to 1 at 8 percent. (See Other Information)

TOTAL BENEFIT-COST RATIO: 1.5 to 1 at 8 percent. (See Other Information)

INITIAL BENEFIT-COST RATIO: 1.12 to 1 at 8 percent (FY 1996).

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the Sacramento River Flood Control Project, California, Mid-Valley Area, Phase III, Design Memorandum (DM) dated June 1996 and approved in August 1996, at 1995 price levels. Current benefits are from the latest available evaluation contained in the Limited Reevaluation Report (LRR) on the Sacramento River Flood Control Project, California, Mid-Valley Area, Phase III, Areas 2, 3 and 4 dated September 2002, October 2001 price levels. The LRR is scheduled for approval in Spring 2003.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
R.D. 1500 (Contracts 1A ,1B, 1C, and 1D)			R.D. 1500	100	Dec 2000
			Areas 2, 3, and 4	Not Started	TBD
Estimated Federal Cost		$ 9,190,000	Entire Project	60	TBD
Estimated Non-Federal Cost		3,072,000			
Cash Contribution	$1,462,000				
Other Costs	1,610,000				
Total R.D. 1500 (Contracts 1A, 1B, 1C and 1D)		$12,262,000			

SUMMARIZED FINANCIAL DATA (Continued)

			ACCUM PCT OF EST FED COST
Remaining Areas 2, 3, and 4			
Estimated Federal Cost		$15,910,000	
Estimated Non-Federal Cost		5,228,000	
Cash Contributions	$ 878,000		
Other Costs	4,350,000		
Total Remaining Areas 2, 3, and 4		$21,138,000	

PHYSICAL DATA	
Levee Reconstruction:	
Toe Drains	- 6.9 miles
Cut-Off Walls	- 0.2 miles
Embankment Modifications	-11.2 miles
Fish and Wildlife Mitigation	-17.0 acres

Project Summary

Estimated Federal Cost		$25,100,000	
Estimated Non-Federal Cost		8,300,000	
Cash Contributions	$2,340,000		
Other Costs	5,960,000		
Total Estimated Project Cost		$33,400,000	
Allocations to 30 September 2002		$11,928,000	1/
Conference Allowance for FY 2003		TBD	
Allocation for FY 2003		TBD	
Allocations through FY 2003		TBD	
Allocation Requested for FY 2004		500,000	
Programmed Balance to Complete after FY 2004		TBD	
Unprogrammed Balance to Complete after FY 2004		0	

1/ Funding of $2,517,000 included in the Sacramento River flood Control Project and reallocated to the Mid-Valley Area Levee Reconstruction Project.

JUSTIFICATION: Levee evaluation studies of approximately 240 miles of project levees have been completed in Placer, Solano, Sutter, Yolo and Yuba Counties. Results indicate that structural problems caused by ongoing seepage and levee subsidence exist. Reconstruction will be required to maintain the integrity of the existing Sacramento River Flood Control Project and assure the system continues to provide the original design levels of flood protection. The levees

JUSTIFICATION (Continued)

were locally constructed and incorporated into the project levee system when it was authorized in 1917. The area has experienced frequent floods, many occurring before streamflow data were recorded. Devastating floods in 1950, 1955, and 1964 caused loss of life and property damage in the area. The winter of 1982-83 has been described as California's wettest winter in more than a century and resulted in a disastrous year of flooding. Of California's 58 counties, 45 were declared national disaster areas including 5 in the Mid-Valley study area. The town of Knights Landing was threatened when water backed up in the Knights Landing Ridge Cut (a bypass channel parallel to the Sacramento River from Knights Landing to Yolo Bypass). The levees in the Knights Landing Ridge Cut area were originally constructed by local landowners and modified by the Corps of Engineers in the 1950's. Between 1956 and 1986, emergency flood repairs (PL 84-99) have been required 4 times on the Knights Landing Ridge Cut levees. Major storms in February 1986 resulted in record floods. Sutter County's Reclamation District (R.D.) 1500 incurred a 500-foot-long slump up to 4 feet deep on the west side of the levee in the Sutter Bypass near Robbins. High flows caused boils and extensive piping damage. During high flows in January and March 1995, considerable seepage and boils developed on the Sacramento River in Sutter and Yolo Counties. During the recent floods of January 1997, seepage and boils were identified on the south levee of the Tisdale Bypass. The levee was stabilized by constructing a stability berm under emergency construction authority. The areas protected by the levees comprise over 93,000 acres, mostly agriculture, and about 2,300 structures, primarily residences and farm structures with a population of over 2,100. The value of property the project will protect is estimated at $97.4 million (October 2001 prices). The project will restore design level of flood protection. Estimated average annual flood damages are $5.9 million (October 2001 prices). Average annual benefits, all flood control, are estimated at $4,126,000 at October 2001 price levels.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Remaining Areas 2, 3 and 4	
Initiate Mitigation Construction Contracts, Areas 3 and 4	$ 100,000
Continue Certification of Non-Federal Lands	38,000
Continue Mitigation Land Bank Contract	217,000
Planning, Engineering, and Design	120,000
Construction Management	25,000
Total	$ 500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$5,865,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	95,000	
Pay 7 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	2,340,000	$ 0 2/
Total Non-Federal Costs	$8,300,000	$ 0

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

2/ Reconstruction will reduce, not increase, annual operation and maintenance costs. Operation and maintenance costs are included in the original Sacramento River Flood Control Project and are the responsibility of the non-Federal interests.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board will act as the local sponsor for reconstruction work. The Project Cooperation Agreement (PCA) for Reclamation District 1500 (R.D. 1500) (Contracts 1A, 1B, 1C and 1D) was signed on 12 September 1996. The second PCA for remaining construction (areas 2, 3, and 4) was signed 4 April 2000 (see OTHER INFORMATION).

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $25,100,000 is an increase of $7,500,000 from the latest estimate ($17,600,000) presented to Congress (FY 2003). This change includes the following items:

Item	Amount
Design Change (additional mitigation)	$ 360,000
Price Escalation on Construction Features	7,015,000
Schedule Change	125,000
Total	$7,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The original Sacramento River Flood Control Project was substantially complete prior to the National Environmental Policy Act of 1969. An Environmental Impact Statement (EIS) was not prepared. A Programmatic Environmental Impact Statement/Environmental Impact Report (EIS/EIR) on the levee reconstruction for the Marysville/Yuba City Area, Mid-Valley Area, Lower Sacramento Area and Upper Sacramento Area, the remaining four phases of the Sacramento River Flood Control System Evaluation, was filed with EPA on 19 June 1992 and the Record of Decision was signed 4 November 1992. The Programmatic EIS/EIR discusses the environmental impacts resulting from potential work for the entire area in general terms. An Environmental Assessment/Initial Study on site-specific impacts for recommended work in the Mid-Valley area was prepared and submitted for public review in May 1995. The Finding of No Significant Impacts (FONSI) was signed on 4 March 1996.

OTHER INFORMATION: Following the record high flows of February 1986, Operations and Maintenance funds were provided under Inspection of Completed Works to perform an evaluation of the integrity of the Sacramento River Flood Control System. A five-phase program which divided the system into five study areas was developed. In each phase, the structural stability of the levees was examined and a determination made as to whether the system was functioning at its design level. The results of each study phase were submitted as an Initial Appraisal Report (IAR). The IAR for the Mid-Valley Area dated December 1991 was approved in October 1992. Funds to initiate engineering and design were appropriated in FY 1993 (Sacramento River Flood Control Project, California). Funds to initiate construction were appropriated in FY 1996. All four areas evaluated in the DM are economically feasible. These areas include R.D. 1500 (Contracts 1A, 1B, 1C and 1D), R.D. 1001 Verona (Area 2), Knights Landing (Area 3), and Elkhorn (Area 4). A LRR was completed in September 1993, approved in March 1994, and revised in May 1995 for the economic analysis for all five phases of the Sacramento River Flood Control System Evaluation.

A second LRR was completed in September 2002 on the unconstructed portion (remaining areas 2,3,and 4) of the Sacramento River Flood Control System, Phase III. The LRR is scheduled for approval in Spring 2003. Although costs for area 4 in particular have increased significantly since the 1996 Design Memorandum, all three areas remain economically feasible.

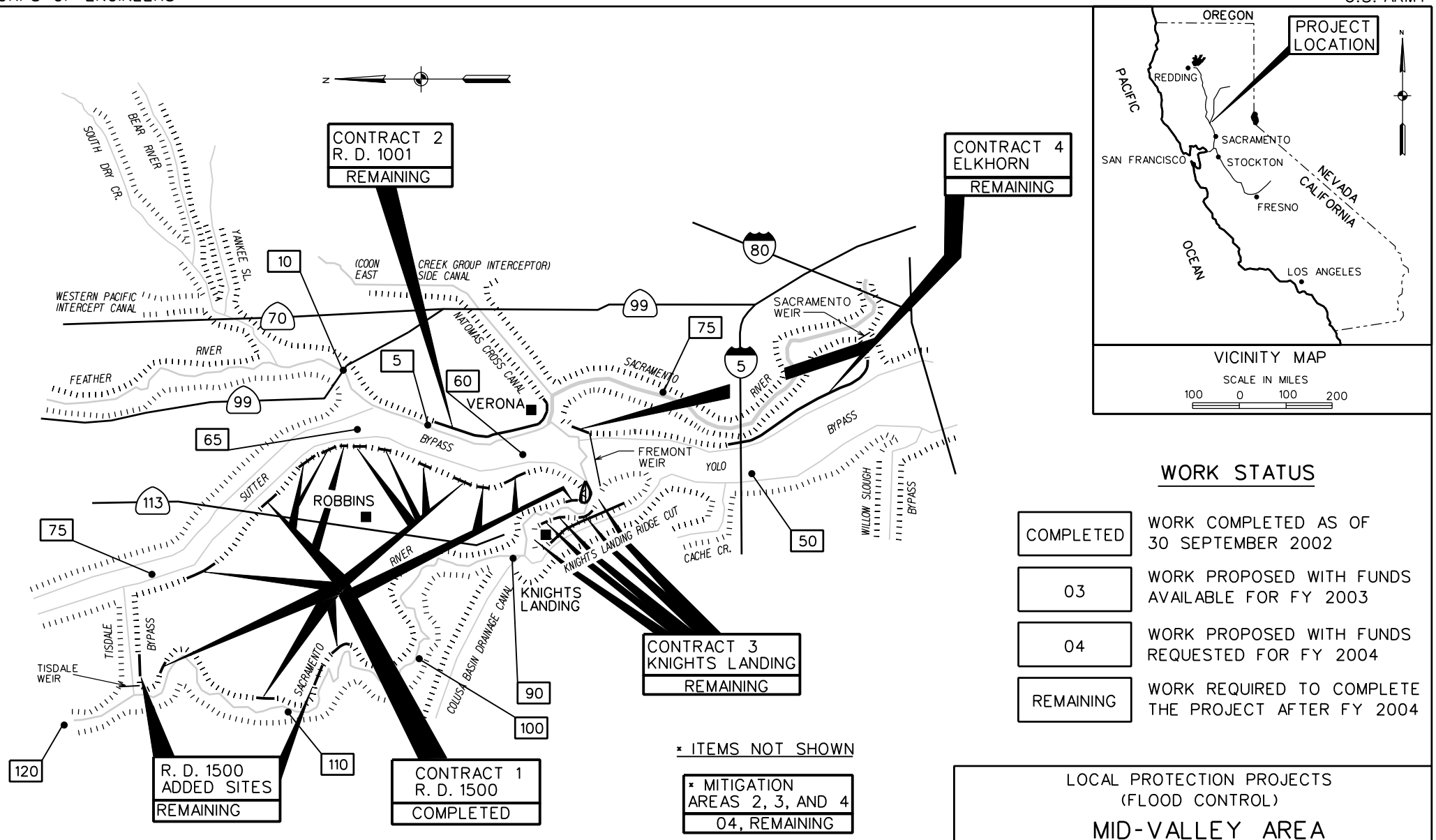
To respond to a request from R.D. 1500 to address the seepage problem for levee reconstruction, a portion of R.D 1500 (Contract 1A) was awarded on 28 September 1996. Construction, involving approximately one mile of landside berm with

OTHER INFORMATION (Continued)

toe drain and slurry cut-off wall, was initiated in May 1997 and was completed in October 1997. The second portion of R.D. 1500 (Contract 1B) was awarded 18 July 1997 and completed September 1998. Contract 1D was awarded in December 1999 and completed November 2000, and the mitigation Contract 1C was awarded June 2000 and completed October 2000. A second PCA for remaining construction (Areas 2, 3 and 4) was signed 4 April 2000.

Based on damages from the January 1997 floods, a supplemental Design Memorandum is being prepared to evaluate additional sites for reconstruction consideration. Funding available under Public Law 84-99 was used to repair sites specifically damaged by these floods. Additional reconstruction sites have been identified in the Supplemental Design Memorandum, in both areas 1 (R.D. 1500) and in remaining areas 2,3, and 4. The costs and benefits of the additional sites located in areas 2,3, and 4 have been incorporated into the project. Benefits, costs, and schedule for the additional sites in area 1 will be finalized in the Supplemental Design Memorandum scheduled for completion in the Summer of 2003.

The fish and wildlife mitigation cost is estimated at $808,000.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2002
03	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
04	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

* ITEMS NOT SHOWN

* MITIGATION AREAS 2, 3, AND 4
04, REMAINING

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

MID-VALLEY AREA LEVEE RECONSTRUCTION CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Napa River, California (Continuing)

LOCATION: The project is located in the city and county of Napa, California. The Napa River drainage basin, comprising 426 square miles, is just north of San Pablo Bay and approximately 40 miles northeast of San Francisco, California.

DESCRIPTION: The project consists of channel modifications to provide the project area with 100-year level of flood protection from Napa River and Napa Creek. Channel modifications include overbank excavation, vertical walls, floodwalls, levees, bridges, pumping stations, and flowage easements. The project also includes recreation trails and incidental ecosystem restoration.

AUTHORIZATION: Flood Control Acts of 1965 and 1976.

REMAINING BENEFIT-REMAINING COST RATIO: 1.9 to 1 at 7-1/8 percent.

TOTAL BENEFIT-COST RATIO: 1.01 to 1 at 7-1/8 percent.

INITIAL BENEFIT-COST RATIO: 1.4 to 1 at 7-1/8 percent (FY 2000).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation in the Final Supplemental General Design Memorandum, October 1998, at 1 October 1997 price levels. Incidental ecosystem restoration benefits are excluded in calculating the benefit cost ratios. The Final Supplemental General Design Memorandum was approved in May 1999.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$128,400,000	Entire Project	20	TBD
Estimated Non-Federal Cost		$127,600,000			
Cash Contributions	$ 13,500,000				
Other Costs	136,900,000				
Reimbursements	-22,800,000				
Total Estimated Project Cost		$256,000,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2002	$27,387,000	
Conference Allowance for FY 2003	TBD	
Allocation for FY 2003	TBD	
Allocations through FY 2003	TBD	
Allocation Requested for FY 2004	7,500,000	
Programmed Balance to Complete after FY 2004	TBD	
Unprogrammed Balance to Complete after FY 2004	0	

PHYSICAL DATA

Channel Modifications along Napa River from Highway 29 to Trancas Street - 6.9 miles:	
excavation	- 1.63 Mil cy
widening	- 16,900 ft
vertical walls	- 1,600 ft
floodwalls	- 13,200 ft
levees	- 9,900 ft
training dikes	- 7,000 ft
bypass channel	- 1,300 ft
Channel Modifications along Napa Creek Main Street to Earl Street	- 4,000 ft:
excavation length	- 1,100 ft
Pumping stations	
Bridges	
roadway	
pedestrian	
Recreation Trails	- 19,000 ft
Flowage easement	- 418.2 acres
Ecosystem - 60 acres	

JUSTIFICATION: The Napa River Basin, ranging from tidal marshes to mountainous terrain, is subject to severe winter storms and frequent flooding. In the lower reach of the river, flood conditions are aggravated by high tides from San Pablo Bay and local runoff. The population in the city of Napa was approximately 74,100 in January 2002. Many residential, business and industrial buildings are located by the Napa River within the City limits. Excluding public facilities, the present value of damageable property within the project floodplain is over $500 million. Flooding in the Napa area has occurred in 1955, 1958, 1963, 1965, 1986 (flood of record) and 1995. The 1986 flood (estimated to be a 55-year event) resulted in 3 people dead, 27 injured, an estimated $50-$100 million in property damages throughout Napa County, and the evacuation of approximately 3,500 residents. The 1986 flood crested at 30.2 feet. The predicted crest for a 100 year flood is 32 feet. During the January 1995 flood (estimated to be a 50-year event) the Napa River crested at about 27 feet, and during the March 1995 flood the river crested near 31 feet. Although the March 1995 river crest was higher than the 1986 flood, fewer damages were incurred during the 1995 flood due to a rain stoppage three to four hours before the crest arrived, allowing the tributaries to partially subside. The damage assessments for the January and March 1995 floods report property damages of $10 million and $75 million, respectively. The floods resulted in 227 businesses and 843 residences being damaged county-wide. The project will provide 100-year level of flood protection. Average annual benefits (October 1997 price levels) are as follows:

Annual Benefits	Amount
Flood Damage Prevention	$15,453,000
Recreation	310,000
Ecosystem Restoration	3,293,000
Total	$19,056,000

FISCAL YEAR 2004: The requested amount will be applied as follows:

Initiate & Complete Contract 1B	$ 2,800,000
Initiate Contract 2E	2,700,000
Planning, Engineering, and Design	1,525,000
Construction Management	475,000
Total	$ 7,500,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 89,311,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	47,589,000	
Pay 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	12,740,000	$336,000
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	760,000	41,000
Federal reimbursement to non-Federal sponsor for non-Federal costs allocated to flood control and recreation in excess of Federal costs.	-22,800,000	
Total Non-Federal Costs	$127,600,000	$377,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Napa County Flood Control and Water Conservation District is the local sponsor for both the flood control and recreation purposes of the project. In June 1999, the Napa County Flood Control and Water Conservation District indicated support for the project and intent to cost share both project purposes. In March 1998, the Napa County electorate passed "Measure A" which will fund the non-Federal share of the project. The Project Cooperation Agreement was executed in February 2000. The current non-Federal cost estimate of $127,600,000, which includes a cash contribution of $13,500,000, is an increase of $36,600,000 from the non-Federal cost estimate of $91,000,000 noted in the Project Cooperation Agreement, which includes a cash contribution of $9,345,000. The sponsor agrees with current costs and continues to be financially able to support the project.

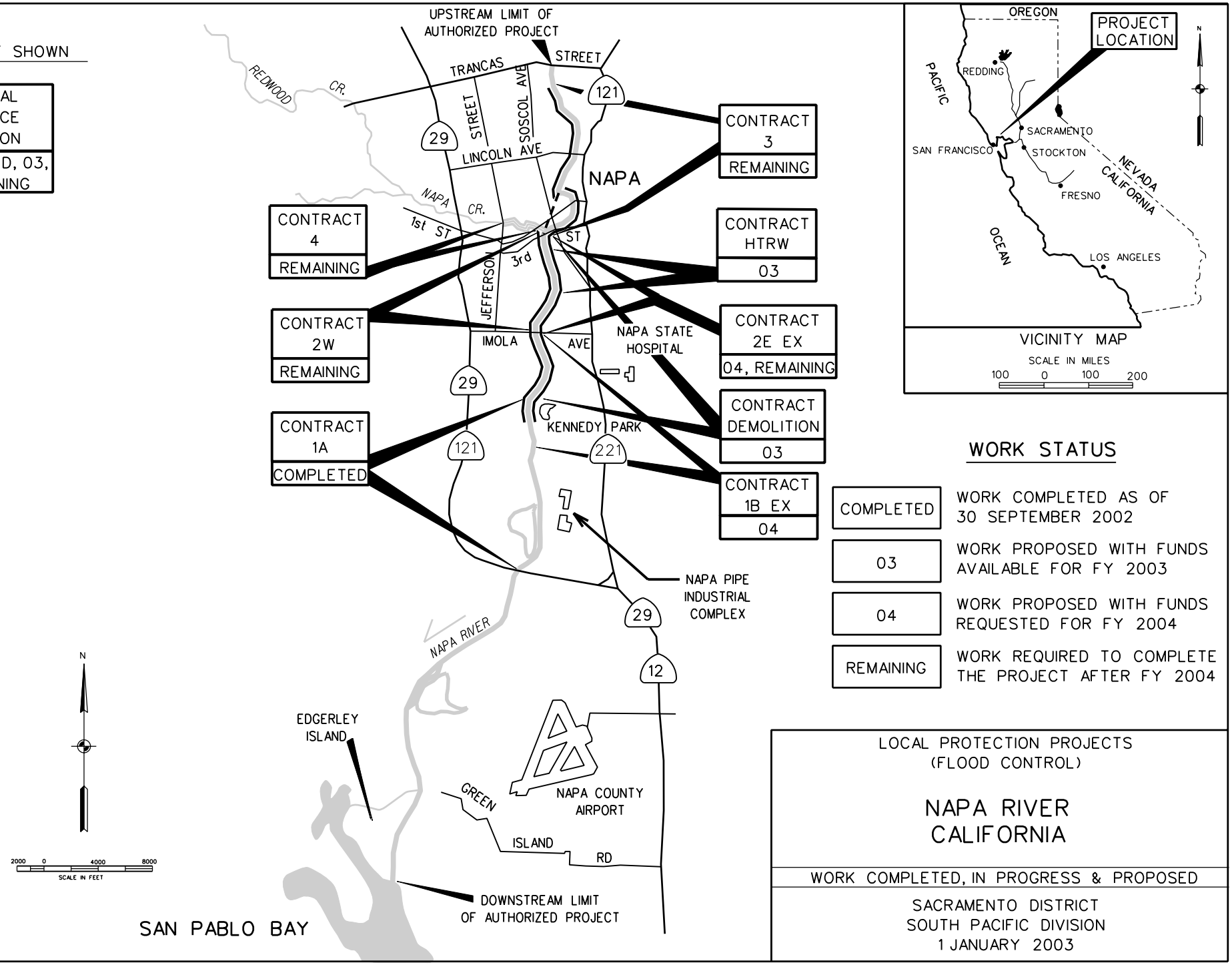
A Section 215 Agreement for construction of a portion of the authorized project by the local sponsor was executed on 16 January 2002. It limits Federal credit/reimbursement to no more than $5,000,000, or 1 percent of total project costs, whichever is greater. In FY 2002, the local sponsor completed construction for a total cost of $1.1 million.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $128,400,000 is an increase of $37,400,000 from the latest estimate ($91,000,000) presented to Congress (FY 2003). This change includes the following items:

Item	Amount
Price Escalation on Construction Features	$11,200,000
Design Changes	26,200,000
Total	$37,400,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final EIS was filed with EPA on 18 December 1997. The Record of Decision was signed on 9 June 1999.

OTHER INFORMATION: Funds to resume preconstruction engineering and design were appropriated in Fiscal Year 1989. Funds to initiate construction were appropriated in Fiscal Year 2000.



LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

NAPA RIVER
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

14 January 2003
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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Petaluma River, California (Continuing)

LOCATION: The project is located in the Payran Street neighborhood between Lynch Creek and the railroad bridge south of Lakeville Street, Petaluma, California, approximately 35 miles north of San Francisco.

DESCRIPTION: The project includes an earthen trapezoidal channel starting near Lynch Creek which transitions to a concrete U-shaped channel at a point about 200 feet upstream of the Lakeville Bridge. Steel sheet-pile floodwalls extend along both sides of the Petaluma River and along one side of Washington Creek. The project includes a concrete weir, 2 new pump stations, 2 large mitigation sites, and the replacement of 2 vehicular bridges, and 2 railroad bridges. All features of the project have been completed with the exception of two railroad bridge replacements and approximately 200 feet of associated channel widening.

AUTHORIZATION: Water Resources Development Act, 2000 (Section 112)

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable because project is nearing physical completion.

TOTAL BENEFIT - COST RATIO: 1.06 to 1 at 6 5/8 percent

INITIAL BENEFIT - COST RATIO: 1.01 to 1 at 6 5/8 percent

BASIS OF BENEFIT - COST RATIO: Benefits are from the latest economic evaluation included in the Limited Reevaluation Report dated March 2001 at May 2000 price levels.

SUMMARIZED FINANCIAL DATA		
Estimated Federal Cost		$ 21,700,000
Estimated Non-Federal Cost		11,700,000
Cash Contribution	$ 9,900,000	
Other Costs	8,800,000	
Reimbursement	-7,000,000	
Total Estimated Project Cost		$ 33,400,000

	ACCUM PCT OF EST FED COST
Allocations to 30 September 2002	14,111,000	
Conference Allowance for FY 2003	TBD	
Allocation for FY 2003	5,589,000	
Allocation through FY 2003	19,700,000	91
Allocation Requested for FY 2004	2,000,000	100
Balance to Complete after FY 2004	0	

STATUS (1 Jan 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire project	85	Sep 2004

PHYSICAL DATA

1 Concrete Weir
2 pump stations
2 mitigation sites
3600 feet of Channel Improvements:
-earthen trapezoidal channel
-U shaped channel
-sheet-pile floodwalls
-channel widening
4 bridge replacements

JUSTIFICATION: In the central residential area of Petaluma, over 600 structures located within the FEMA 100-year floodplain were subject to catastrophic flooding from the Petaluma River in January 1982, at which time $28 million of damages were incurred. The area has flooded 8 times since 1982. Flood depths during the 1982 storm reached 6 feet. Flood crests occur very quickly with little warning. The central residential area was also severely flooded in February 1986. Average annual benefit, all flood control, are estimated at $2,275,000, at May 2000 prices.

FISCAL YEAR 2004: The requested amount of $2,000,000 will be applied as follows:

Complete construction	$1,600,000
Planning, Engineering and Design	200,000
Construction Management	200,000
Total	$2,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursement	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$3,000,000	
Modify or relocate utilities, roads, bridges (except railroads bridges), and other facilities, where necessary in the construction of the project.	5,800,000	$85,000
Pay an additional 8.7 percent of the construction costs allocated to flood control to bring the non-Federal share of cost to 35%, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities. (The non-Federal sponsor has already provided approximately $9,900,000 toward project construction. Roughly $7,000,000 will be reimbursed to the sponsor)	2,900,000	
Total Non-Federal Costs	$11,700,000	$85,000

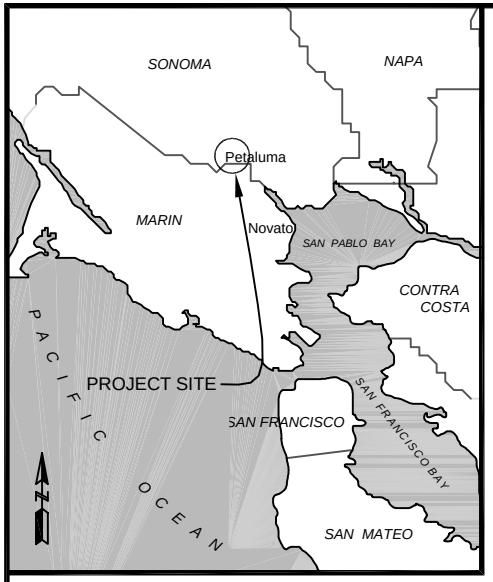
STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement was originally executed on 5 July 1996 for a Small Flood Control Project (Section 205). It has been amended to reflect the terms of WRDA 2000 (Section 112). The amended Project Cooperation Agreement was executed on 20 August 2001. The sponsor will be eligible for reimbursement due to overpayment of local contributions. Reimbursement is currently estimated at $7,000,000, of which $6,000,000 was reimbursed to the sponsor in Fiscal Year 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal estimate of $21,700,000 is the same as the latest estimate submitted to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was completed in March 1995, and a Record of Decision was signed on 18 June 1996. In accordance with project Environmental Impact Statement, the Corps has imposed a 16 July – 31 October construction window for any in-channel work to minimize impacts to the Sacramento splittail and the Central California steelhead trout.

OTHER INFORMATION: The Petaluma River Flood Control Project was planned, designed and partially constructed as a Continuing Authorities Program (CAP) project. Total project cost at that time (1996) was $20.3 million. The Federal share was limited to $5 million. Project costs have escalated well beyond CAP cost limits. The project was specifically authorized in the Water Resources Development Act 2000, Section 112. Further, Congressional direction in House Report 106-693 accompanying the Energy and Water Development Appropriations Bill, 2001 provided guidance to the Corps "…to use available funds to continue the project." Federal funds of $3.1 million were reprogrammed to the project in fiscal year 2001, and additional funds were provided to continue the project in the FY 2002 Energy and Water Development Appropriations Act.

Approximately $1 million of Federal CAP costs for General Investigations type study activities (reconnaissance and feasibility efforts) are excluded from construction project costs.



VICINITY MAP

REPLACE RAILROAD BRIDGES 03, 04

TRAPEZOIDAL CHANNEL

PUMP STATION

PROJECT LIMIT

PETALUMA RIVER

CONSTRICTION WEIR

LYNCH CREEK

FLOW

PAYRAN STREET BRIDGE

SPURLINE RAILROAD BRIDGE

LAKEVILLE AVE. BRIDGE

MAINLINE RAILROAD BRIDGE

PETALUMA RIVER

PUMP STATION

UPSTREAM

DOWNSTREAM

WASHINGTON CREEK

PROJECT LIMIT

REPLACE VEHICULAR BRIDGES 03, 04

TRANSITION CHANNEL 03, 04

U-SHAPED CHANNEL

FLOW

PROJECT LIMIT

WASHINGTON STREET

LEGEND

WORK COMPLETED AS OF 30 SEPTEMBER 2002

03 — WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003

04 — WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004

REIMB — WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

PETALUMA RIVER FLOOD CONTROL IMPROVEMENT CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SOUTH PACIFIC DIVISION
U.S. ARMY ENGINEER DISTRICT SAN FRANCISCO
CORPS OF ENGINEERS

1 JANUARY 2003

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Sacramento River Bank Protection Project, California (Continuing)

LOCATION: The project is located in north-central California, along the Sacramento River and its principal tributaries from Sacramento River RM 0.0 at Collinsville to Chico Landing at RM 194. It is within the limits of the existing Sacramento River Flood Control Project levees and includes Butte Basin, Cache Slough, and a portion of the Sacramento-San Joaquin Delta slough. The project meanders through eight counties including Tehama, Glenn, Butte, Colusa, Sutter, Yolo, Solano, and Sacramento.

DESCRIPTION: The project provides a long-range program of bank protection to protect the levees within the limits of the Sacramento River Flood Control Project from erosion. It prevents undermining of levee sections and includes fish and wildlife mitigation features. Some recreational facilities have been provided along the river. Remaining recreation facilities are dependent upon final design and negotiation of cost sharing agreements with the State of California.

AUTHORIZATION: Flood Control Act of 1960; River Basin Monetary Authorization Act of 1974; Further Continuing Appropriations Act of 1983 and Water Resources Development Act of 1986.

REMAINING BENEFIT-REMAINING COST RATIO: The remaining benefit-remaining cost ratio for all project elements is not applicable because monetary benefits have not been quantified. In the reevaluation of project benefits for the Second Phase report, it was determined impractical to assign a monetary value to the benefits which would result from the removal of threats of eventual levee breaks when there are hundreds of vulnerable locations in various states of deterioration. Therefore, a project benefit-cost ratio was not included in the report submitted to the Congress on the advisability for remaining work.

TOTAL BENEFIT-COST RATIO: Not Applicable

INITIAL BENEFIT-COST RATIO: Not Reported

BASIS OF BENEFIT-COST RATIO: Not Applicable

SUMMARIZED FINANCIAL DATA

Pre-Separable Element Work (Contracts 1-37, 38A and 39)			
Estimated Federal Cost			$54,790,000
Programmed Construction		$54,790,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			$27,218,000
Programmed Construction		$27,218,000	
Cash Contribution	$12,128,000		
Other Costs	15,090,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$ 0	
Cash Contribution	$ 0		
Other Costs	0		
Total Estimated Programmed Construction Cost			$82,008,000
Total Estimated Unprogrammed Construction Cost			0
Total Pre-Separable Element			$82,008,000
Separable Element 38B			
Estimated Federal Cost			$ 3,088,000
Estimated Non-Federal Cost			$ 1,030,000
Cash Contribution		$ 931,000	
Other Costs		99,000	
Total Separable Element 38B			$ 4,118,000

	STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Bank Protection		94	TBD
Recreation		42	TBD
Entire Project		94	TBD

SUMMARIZED FINANCIAL DATA (Continued)

Separable Element 40			
Estimated Federal Cost			$20,820,000
Programmed Construction		$18,822,000	
Unprogrammed Construction		1,998,000	
Estimated Non-Federal Cost			$ 6,075,000
Programmed Construction		$ 6,000,000	
Cash Contribution	$ 4,629,000		
Other Costs	1,371,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$ 75,000	
Cash Contribution	$ 0		
Other Costs	75,000		
Total Estimated Programmed Construction Cost			$24,822,000
Total Estimated Unprogrammed Construction Cost			2,073,000
Total Separable Element 40			$26,895,000
Separable Element 41			
Estimated Federal Cost			$15,093,000
Programmed Construction		$ 7,050,000	
Unprogrammed Construction		8,043,000	
Estimated Non-Federal Cost			$ 5,297,000
Programmed Construction		$ 3,048,000	
Cash Contribution	$ 2,032,000		
Other Costs	1,016,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$ 2,249,000	
Cash Contribution	$ 2,246,000		
Other Costs	3,000		
Total Estimated Programmed Construction Cost			$10,098,000
Total Estimated Unprogrammed Construction Cost			10,292,000
Total Separable Element 41			$20,390,000

SUMMARIZED FINANCIAL DATA (Continued)

Separable Element 42			
Estimated Federal Cost			$57,004,000
Programmed Construction		$57,004,000	
Unprogrammed Construction		0	
Estimated Non-Federal Cost			$22,532,000
Programmed Construction		$22,532,000	
Cash Contribution	$18,775,000		
Other Costs	3,757,000		
Estimated Non-Federal Cost			
Unprogrammed Construction	$ 0		
Cash Contribution	0		
Other Costs	0		
Total Estimated Programmed Construction Cost			$71,838,000
Total Estimated Unprogrammed Construction Cost			7,698,000
Total Separable Element 42			$79,536,000
Separable Element 43			
Estimated Federal Cost			$26,427,000
Programmed Construction		$14,569,000	
Unprogrammed Construction		11,858,000	
Estimated Non-Federal Cost			$ 6,134,000
Programmed Construction		$ 1,085,000	
Cash Contribution	$ 277,000		
Other Costs	808,000		
Estimated Non-Federal Cost			
Unprogrammed Construction		$ 5,049,000	
Cash Contribution	$ 1,297,000		
Other Costs	3,752,000		
Total Estimated Programmed Construction Cost			$15,654,000
Total Estimated Unprogrammed Construction Cost			16,907,000
Total Separable Element 43			$32,561,000

SUMMARIZED FINANCIAL DATA (Continued)

First Phase - Fish and Wildlife Mitigation		
Estimated Federal Cost		$ 1,348,000
Estimated Non-Federal Cost		774,000
Cash Contribution	$ 74,000	
Other Costs	700,000	
Total First Phase - Fish and Wildlife Mitigation		$ 2,122,000
Third Phase (P,E&D only)		
Estimated Federal Cost		$ 1,330,000
Estimated Non-Federal Cost		440,000
Cash Contribution	$ 440,000	
Other Costs	0	
Total Third Phase (P,E&D only)		$ 1,770,000
Project Summary		
Estimated Federal Cost		$179,900,000
Programmed Construction	$158,001,000	
Unprogrammed Construction	21,899,000	
Estimated Non-Federal Cost		$ 69,500,000
Programmed Construction	$ 62,127,000	
Cash Contribution	$39,286,000	
Other Costs	22,841,000	
Estimated Non-Federal Cost		
Unprogrammed Construction	$ 7,373,000	
Cash Contribution	$ 3,354,000	
Other Costs	3,830,000	
Total Estimated Programmed Construction Cost		$220,128,000
Total Estimated Unprogrammed Construction Cost		29,272,000
Total Estimated Project Cost		$249,400,000

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA
Allocations to 30 September 2002	$117,886,000		Bank Protection: 835,000 lineal feet
Conference Allowance for FY 2003	TBD		First Phase – 430,000 lineal feet
Allocation for FY 2003	TBD		Second Phase – 405,000 lineal feet
Allocations through FY 2003	TBD		
Allocation Requested for FY 2004	2,000,000		
Programmed Balance to Complete after FY 2004	TBD		
Unprogrammed Balance to Complete after FY 2004	TBD		

JUSTIFICATION: The Sacramento River levee system was initiated as a purely local project and in many cases the levees were constructed close to the riverbanks without a protective berm. The levee system, which was adopted as the Sacramento River Flood Control Project in 1917, has been modified and expanded several times since that date but no major change in the basic levee alignment has been made since the original conception of the project. Bank protection is necessary to preserve the Sacramento River Flood Control Project and insure that it will continue to furnish the designed degree of protection. The levees are continuously threatened by erosion, and unless corrective measures are taken levee failures may occur with resultant catastrophic damage and possible loss of many lives. Flood events that occurred in February 1986 greatly emphasized these problems. Several levees located along the Sacramento River were subjected to an extensive amount of erosion due to the extremely high river flows. High flows in January and March 1995 caused flooding and erosion in the Butte Basin area along the Sacramento River, River Mile (RM) 188 at Glenn County Road 29. If levee repairs had not been made, additional flooding would have caused extensive loss of agricultural land and endangered residents in nearby communities of Butte City, Princeton and Colusa. In addition, during moderately high flows in February 1996, a 500 foot portion of berm on the American River failed, threatening the levee protecting the City of Sacramento. A contract was awarded in August 1996 to repair this section and provide bank protection for a total of 1,200 lineal feet. The area protected by the levees comprise over one million acres in which about 50 communities are located; value of improvements (2001 prices) to be protected is about $37 billion and about 2.2 million people live within the flood plain. The levee system enables the use of the flood plain for the benefit of the state and nation. The extremely fertile flood plain lands produce about 8 percent of the total agricultural production of the state and 23 percent of the rice production of the nation. The Sacramento River Bank Protection Project provides a long-range program of bank protection to protect the levees where serious erosion is occurring and to prevent erosion from undermining additional levee sections in the future. In addition to assuring urgently needed flood protection, the project provides recreation facilities consisting of boat-launching facilities, campgrounds, and picnic areas needed along the river to meet a rapidly increasing public demand. Since the initial bank protection

JUSTIFICATION (Continued)

contract was let in June 1963, about 788,000 lineal feet of bank protection has been provided. Approximately 47,000 lineal feet of bank protection remains to be placed on the second phase of this project, and the local sponsor supports the addition of a third phase, which will require Congressional authorization.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Separable Element 42	
Continue Required Monitoring of Completed Mitigation Contracts	$ 120,000
Planning, Engineering, and Design	1,880,000
Total	$2,000,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 20,712,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	5,959,000	

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation (Continued)		
Pay 15 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to one-third for work initiated prior to 30 April 1986, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	12,650,000	$ 792,000
Pay 18 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent for work initiated after 30 April 1986, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	30,179,000	274,000
Total Non-Federal Costs	$ 69,500,000	$1,066,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: Chapter 2188, Statutes of the State of California, approved by the Governor on 21 July 1961, established the State Reclamation Board as the agency to meet the requirements of local cooperation for the project. Assurances of local cooperation were accepted from the Board 5 February 1963. As of 30 September 2002, the State has expended $50,426,000 for construction of the project. The Reclamation Board signed a Local Cooperation Agreement (LCA) satisfying the requirements of Section 221, Flood Control Act of 1970 (Public Law 91-611) for the remaining Second Phase work in May 1984. In accordance with provisions of the Water Resources Development Act of 1986 for separable project elements initiated after 30 April 1986, new LCAs were executed for separable element 41 on 15 August 1988 and for separable elements 38B, 40, and 42 on 7 December 1988. The LCA for the First Phase Mitigation was signed on 5 June 1990. Execution of a Project Cooperation Agreement for separable element 43, the last separable element in the Second Phase, is unscheduled pending approvals to proceed with more comprehensive evaluations of design alternatives. The current non-Federal cost estimate of $69,500,000 has not changed from the estimate last presented to Congress.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $179,900,000 is the same as the latest estimate presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A final Environmental Impact Statement (EIS) was filed on 15 June 1973. A SEIS for the Second Phase was filed in February 1989. A final EIS for additional work in Butte Basin, and an update submitted as Supplement 4, were signed in June 1988. An Environmental Assessment/Site Specific Report (EA/SSR) was prepared for Contract 42A and a Finding of No Significant Impacts (FONSI) was signed on 15 February 1994. An EA/SSR was prepared for Contracts Lower American River site 3 and 40D and FONSI's were signed 2 July 1996 and 3 September 1997, respectively. A Supplemental Design Memorandum No. 8 was prepared for sites along the lower American River and the SEIS was completed in April 1998. Currently, an EA/SSR to meet both Federal and State of California requirements is approved prior to construction of each bank protection contract. An Engineering Documentation Report (EDR) is being prepared to address remaining sites.

OTHER INFORMATION: Funds to initiate preconstruction planning were appropriated in FY 1962, and for construction in FY 1963. Construction of First Phase was completed in November 1974. Authority to proceed with additional bank protection works, Second Phase, was provided by Section 202, River Basin Monetary Authorization Act of 1974, Public Law 93-251. The Further Continuing Appropriations Act of 1983 extended the limits of the project to include bank protection along the Sacramento River to the upstream ends of the project levees to Chico Landing (Butte Basin area). The Water Resources Development Act of 1986 modified the First Phase of the project to include acquisition of lands for establishment and maintenance of wildlife habitat at a total cost of $1,410,000 ($2,122,000 inflated through construction). The last parcel was acquired in Fiscal Year 1997. Re-vegetation has been highly successful and is serving as a model for re-vegetation efforts by others.

The U.S. Fish and Wildlife Service, by letter dated November 7, 1985, issued a Biological Opinion stating that the bank protection work along the Sacramento River from Chico Landing to Red Bluff and in the Butte Basin area would endanger the threatened valley elderberry longhorn beetle. The Service issued a revised opinion on 19 May 1987 that permitted limited rock revetment bank protection to be constructed in the Butte Basin. The potential impact to winter run salmon has also been a significant concern as the winter run salmon have experienced an alarming decline since 1969. National Marine Fisheries Service (NMFS) listed winter run salmon as a threatened species in November 1990. The winter run salmon biological data report was completed January 1991. NMFS Biological Opinion dated 28 October 1991 for the winter run salmon was non-jeopardy but lists recommended conservation measures. Winter run salmon along with bank swallows and Swainson's Hawk are also State listed species and a Biological Opinion was received from California Department of Fish and Game on 18 November 1991 which also recommends conservation measures. By letter dated 16 September 1992, NMFS has requested re-initiation of formal consultation for winter run salmon. Due to these biological opinions, an EDR is being prepared to address remaining sites.

On August 23, 2001, the U.S. Fish and Wildlife Service issued its final Biological Opinion on the Sacramento River Bank Protection Project (SRBPP). The National Marine Fisheries Service released their opinion on September 27, 2001. Both opinions were virtually identical in terms of identifying the SRBPP's effects as jeopardizing the existence of five fish species (Delta smelt, Sacramento splittail, winter-run Chinook salmon, spring-run Chinook salmon, and Central Valley steelhead) listed under the Endangered Species Act in the Sacramento River. The Corps is currently participating in interagency working groups to reconcile needs for continued bank protection with impacts of the Biological Opinions.

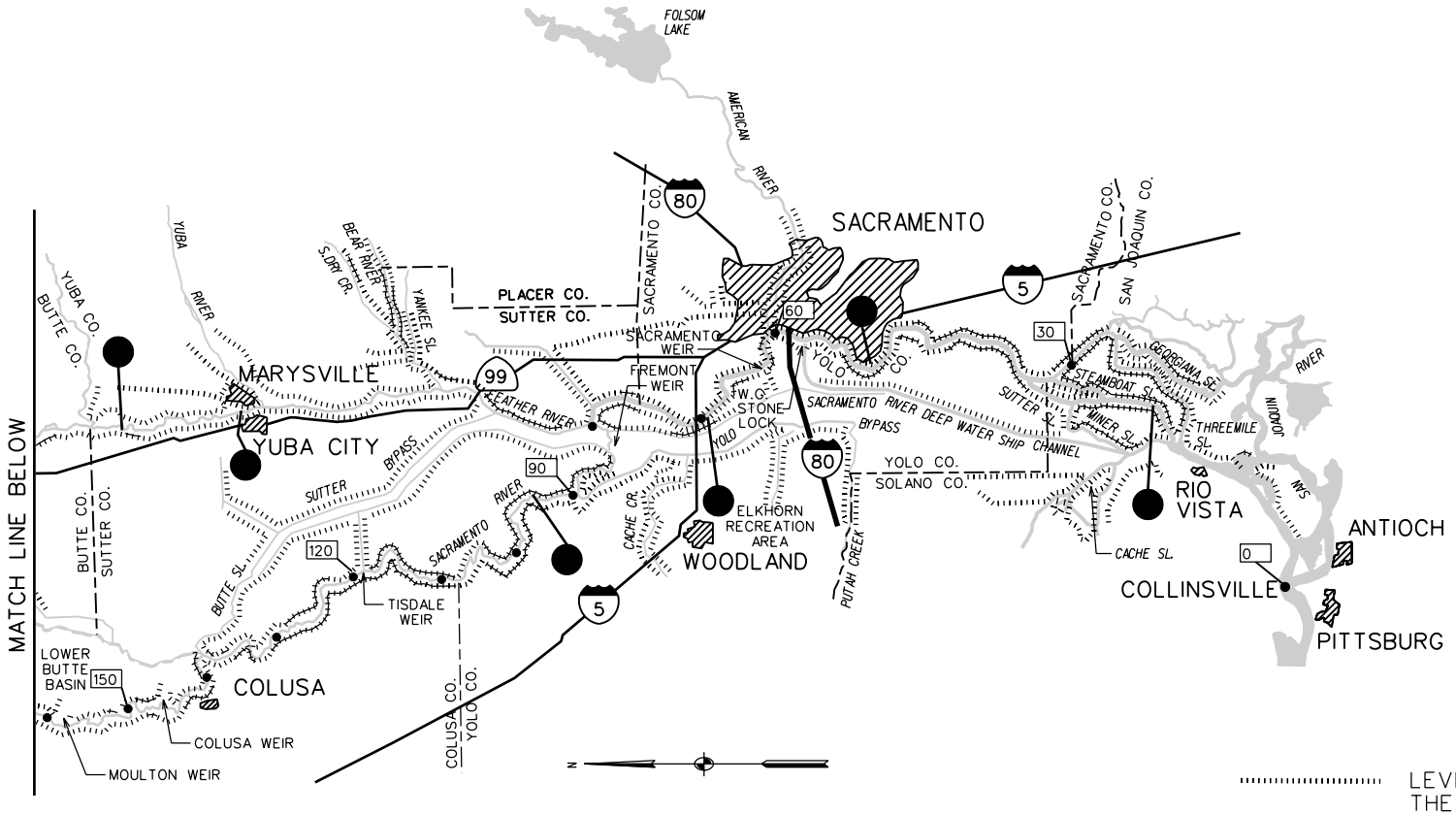
OTHER INFORMATION (Continued)

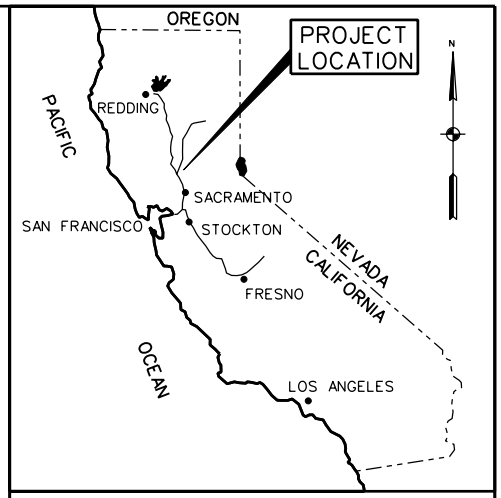
After the February 1986 flood, the Sacramento River System experienced below normal precipitation and flood flows. This led to a lower rate of erosion and a lowered need for expedited bank protection work. However, the storms of January and March 1995 and January 1997 have caused erosion damage and the urgency for bank protection has increased. Additional bank protection placement will be addressed in the EDR, scheduled for completion in FY 2006.

The California Reclamation Board, by letter dated May 11, 1984, requested initiation of a third phase of bank protection. The Board reiterated the critical need for a third phase by letter of September 1, 1988 and stated its willingness and ability to cost-share this phase of the project in accordance with the provisions of the Water Resources Development Act of 1986. Congressional authorization is required to extend the limits of bank protection beyond the current 835,000 lineal feet. Potential proposals for Third Phase bank protection will require a General Reevaluation Report to include a revised project cost estimate. Several sites along the Lower American River within the confines of the Sacramento River Bank Protection Project require bank protection to avoid undermining levees and flood protection in the Sacramento Metropolitan Area. Repair of these sites is the basis for the pre-project condition of the American River Investigation. These sites, totaling approximately 14,000 lineal feet, have been included as part of separable element 42. Lower American River 1A3, Site 3 was completed May 1999. Lower American River 2, Site 5 phase 1 was completed September 1999. Lower American River Sites 2 and 4 and Site 5 phase 2 were completed December 1999. Lower American River Site 5 Phase 3 was awarded in November 2000 and construction was completed in FY 2001. Monitoring will continue three years for plant establishment. Contract 40E, RM 149, was awarded December 2001 and completed November 2002.

A portion of the project has an unprogrammed balance including funds for recreation and separable element 43 pending the outcome of the Engineering Documentation Report.

The fish and wildlife mitigation cost is estimated at $26,589,000.

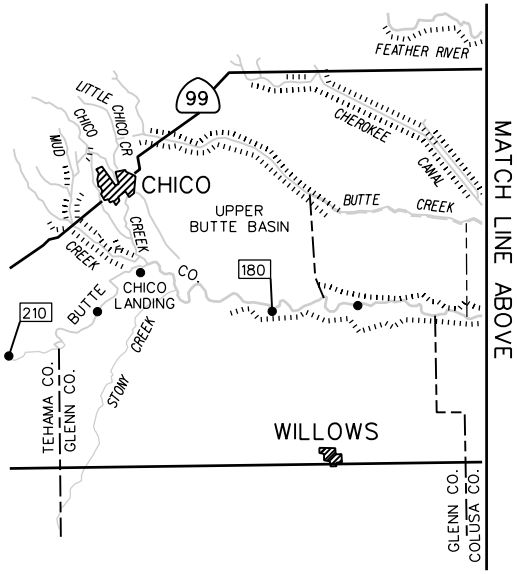




VICINITY MAP

SCALE IN MILES

100 0 100 200



LEGEND

LEVEE SYSTEM AS CONSTRUCTED BY THE CORPS OF ENGINEERS

LOCATION OF BANK PROTECTION SITES ACCOMPLISHED UNDER FIRST PHASE OF THE SACRAMENTO RIVER BANK PROTECTION PROJECT

RECREATION SITE

90 RIVER MILES

5 0 5 10 15 20

SCALE IN MILES

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

SACRAMENTO RIVER BANK PROTECTION PROJECT CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

14 January 2003
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3 February 2003

COMPLETED WORK

FIRST PHASE, BANK PROTECTION:
CONTRACTS 1 THRU 26 (430,000 LF)

SECOND PHASE PART 1, BANK PROTECTION:
CONTRACTS 27 THRU 36 (182,000 LF)

SECOND PHASE PART II, BANK PROTECTION:
PRE-SEPARABLE ELEMENT (46,744 LF)
37 (RM 0-62)
38A (RM 60-145)
39 (RM 177-194)

SEPARABLE ELEMENT 38B (14,436 LF)
38B (RM 60-120)

SEPARABLE ELEMENT 40 (40,794 LF)
EMERGENCY COUNTY ROAD 29
(RM 186-188)
40A (RM 132-180)
40B-1 (RM 187-192)
40B-M (RM 145-194)
40C (RM 15-25)
STEAMBOAT, MINER & SUTTER SL.
40C-M (RM 15-25)
40D (RM 16, 1R) STEAMBOAT SL.
40D-M (RM SL16.1)
40E (RM 149)

SEPARABLE ELEMENT 41 (29,475 LF)
41A (RM 0-60)
41A-M1 (RM 20-60)
41A-M2 (RM 20-60)
41A-M3 (RM 20-60)
41A-M4 (RM 20-60)
41A-M5 (RM 20-60)
41B (FEATHER RIVER)
41B-M (FEATHER RIVER)

COMPLETED WORK (Cont.)

SECOND PHASE PART II, BANK PROTECTION (CONT.):
SEPARABLE ELEMENT 42 (17,362 LF)
42A (RM 60-145)
42A-M (RM 60-145)
42A-M1 (RM 60-145)
42C (RM 90.4 & 90.9) FISH CURT.
42C-M (RM 90.4 & 90.9) FISH CURT.
42D (RD 108-COLUSA BASIN)
42D-M (RD 108-COLUSA BASIN)
LAR 1A1 (SITE 3)
LAR 1A2 (RM 4.4, SITE 3, RIVER PARK)
LAR 1A2-M (RM 4.4, SITE 3, RIVER PARK)
LAR 1A3-M (RM 4.4, SITE 3, RIVER PARK)
LAR 1B (RM 2-9, SITES 1, 2 & 4)
LAR 1B-M (RM 2-9, SITES 1, 2 & 4)
LAR 2 (SITE 5, PHASE 1)
LAR 2 (SITE 5, PHASE 2)
LAR 2-M (SITE 5, PHASE 3)

WORK PROPOSED WITH FY03 FUNDS

LAR 2-M (SITE 5)

WORK PROPOSED WITH FY03, FY04 & REMAINING FUNDS

LAR 2-M (SITE 5)

WORK PROPOSED WITH REMAINING FUNDS

40F-M (RM 164)
40I (RM 60.1)
42F-M (RM 85.6, 123.5, 130.0 & 130.8)
40G (RM 26.9, 43.1 & 43.3)
40G-M (RM 26.9, 43.1 & 43.3)
40I-M (RM 60.1)
40_ (RM SL0-62, 145-194)
40_-M (RM SL0-62, 145-194)
42H (RM126)
43_ (RM 0-194)
43_-M (RM 0-194)
LAR 2 (SITE 5, PHASE 4)

WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2002
03	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
04	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

SACRAMENTO RIVER BANK PROTECTION PROJECT CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

14 January 2003
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3 February 2003

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Santa Ana River Mainstem, California (Continuing)

LOCATION: The project is located along a 75-miles reach of the Santa Ana River in Orange, Riverside, and San Bernardino Counties southeast of and adjacent to metropolitan Los Angeles, California.

DESCRIPTION: The plan of improvement provides for construction of the Seven Oaks Dam about 35 miles upstream of the existing Prado Dam, with a gross reservoir storage of 145,600 acre feet; flood plain management of the flood overflow area on the Santa Ana River between Seven Oaks Dam and the existing Prado Reservoir; enlargement of Prado Dam to increase the reservoir storage capacity from 217,000 acre-feet to 362,000 acre-feet; construction of 3.3 miles of channel modifications along Oak Street Drain in Corona; enlargement of the existing 2.4 miles of Mill Creek levee; construction of a detention basin and 2.0 miles of channel modifications along the Santiago Creek; and various means of flood control, including flood plain management, levees, and vertical walled concrete channels along the 30.5 miles of the Santa Ana River from Prado Dam to the Pacific Ocean. In addition, the plan includes recreational development and purchase of lands for mitigation and preservation of endangered species. A project for San Timoteo Creek was added to the Santa Ana River Mainstem project by the Energy and Water Development Appropriation Act of 1988. A special report was approved in May 1994; engineering and design was initiated in Fiscal Year 1991 with funds appropriated for that purpose and was completed in June 1994. Construction was initiated in Fiscal Year 1994. The project was modified by the Water Resources Development Act of 1990 which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management areas. These recreational features are not included in the current estimate pending development of plans and determination of costs.

AUTHORIZATION: Water Resources Development Act of 1986, Energy and Water Development Appropriation Act, 1988, Water Resources Development Act of 1990, and Water Resources Development Act of 1996.

REMAINING BENEFIT-REMAINING COST RATIO: 3.5 to 1 at 8-5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.2 to 1 at 8-5/8 percent.

INITIAL BENEFIT-COST RATIO: 1.3 to 1 at 8-5/8 percent (FY 1990).

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Phase II General Design Memorandum dated August 1988 at 1987 price levels.

SUMMARIZED FINANCIAL DATA

Estimated Federal Cost		$1,020,000,000
Programmed Construction	$939,120,000	
Unprogrammed Construction	80,880,000	
Estimated Non-Federal		471,000,000
Programmed Construction	$465,264,000	
Cash	$ 78,421,000	
Other Costs	386,843,000	
Estimated Non-Federal		
Unprogrammed Construction	$ 5,736,000	
Cash	$ 3,151,000	
Other Costs	2,585,000	
Total Estimated Programmed Construction Cost		$1,404,384,000
Total Estimated Unprogrammed Construction Cost		86,616,000
Total Estimated Project Cost		$1,491,000,000
Allocations to 30 September 2002		$701,093,000
Conference Allowance for FY 2003		TBD
Allocation for FY 2003		TBD
Allocations Through FY 2003		TBD
Allocation Requested for FY 2004		15,700,000
Programmed to Complete after FY 2004		TBD
Unprogrammed Balance to Complete after FY 2004		TBD

ACCUM PCT OF EST FED COST	STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
	Seven Oaks Dam	100	August 99
	Prado Dam	0	TBD
	Santiago Creek	0	TBD
	Mill Creek	100	March 92
	Oak Street Drain	100	September 94
	Lower Santa Ana River Channel	84	TBD
	Recreation	0	TBD
	San Timoteo	67	TBD
	Entire Project	76	TBD

PHYSICAL DATA

SEVEN OAKS DAM:
Dam: Type - Impervious core
Height - 550 feet
Length - Crest Length 2,980 feet
Outlet Works: Gated conduit, 8,000 cfs maximum discharge
Basin Capacity: 145,600 acre-feet
Spillway: Type - Detached overflow, 500 ft wide, unlined
Embankment: Earth and Rockfill
Lands & Damages: Acres - 2,736 existing streambed and undeveloped (mountainous)

MILL CREEK:
Levee repair: Type - Grouted riprap
Height - 10 feet maximum
Length - 12,500 feet (2.4 miles) of existing
13,600 feet (2.6 miles)

Floodwall (Top of levee): Type - Concrete
Height - 7.5 feet maximum
Length - 12,600 feet (2.4 miles)

OAK STREET DRAIN:
Channel: Rectangular concrete 3.0 mile
Trapezoidal riprap 0.3 mile
Lands & Damages: 34 acres for rights-of-way

SANTIAGO CREEK:
Channel: Rectangular concrete 500 feet
Trapezoidal riprap 2.0 miles
Reservoir: Buttressed
Basin Capacity: Flood control 4,620 acre feet (el. 274 to 298)
Lands and Damages: 281.5 acres, reservoir and channel

PRADO DAM:
Dam: Type - Impervious core
Height - 134 feet
Length - 3,050 crest length
Embankment: Rolled earthfill
Spillway: Type - Detached, overflow concrete, 1,000 feet wide, 578,000 cfs maximum design discharge.
Basin Capacity: 362,000 acre-feet
Lands & Damages: Acres - 1,661 grazing, wildlife

LOWER SANTA ANA RIVER:
Channel: - 200-450 feet wide, 34 bridges replaced or modified
- 5.0 miles trapezoidal concrete
- 2.4 miles rectangular concrete
- 15.5 miles trapezoidal grouted riprap
- 0.8 miles rectangular concrete/soft bottom

Lands & Damages: Acres - 2,429.5 for channel (7.4 miles floodway)
Mitigation Lands: Acres - 92 marsh restoration

RECREATION FACILITIES:
LOWER SANTA ANA RIVER: Bicycle/equestrian trail - 32 miles

SANTIAGO CREEK: Trails - Bicycle and equestrian (1 mile)
Rest stop - Concrete bicycle wheel stops
SEVEN OAKS TO PRADO DAM: To be developed

SAN TIMOTEO CREEK:
Channel: 5.4 miles trapezoidal concrete
Basins: 6 in-channel and transition chute
Lands & Damages: 60.3 acres for rights-of-way

JUSTIFICATION: Construction of this project will primarily provide protection to lands and improvements within Orange County downstream of Prado Reservoir. A severe flood threat exists in this area, which could cause damages in excess of $15 billion and could endanger and disrupt the lives of over three million people living or working in the floodplain. Damages upstream of Prado Reservoir could exceed $450 million. The overflow area comprises 160 square miles of primarily urban development in 15 cities including San Bernardino, Riverside, Anaheim, Orange, Santa Ana, Fountain Valley, Costa Mesa, Huntington and Newport Beach. The greatest potential damage area is the Orange County floodplain below Prado Dam. The flood of 1938 is the largest that has been recorded since accurate stream gages were placed in the basin. With a peak flow at Riverside Narrows of approximately 100,000 cubic feet per second, the flood covered thousands of acres of then predominantly rural Orange County. Although the area was largely agricultural at the time, the flood caused $4 million in damages ($114.3 million at 2002 prices). Following this storm, Prado Dam was constructed at the head of the Santa Ana Canyon, providing effective control of floods for much of the downstream basin. In 1969, when communities upstream of Prado Dam suffered $85 million in damages, Prado Dam prevented an estimated $525 million in damages to downstream communities. With current development, damages for a similar flood would be approximately $3.5 billion, at 2002 prices. Without the project, the level of protection downstream of Prado, primarily in Orange County, is approximately 70 years. With the project, the level of protection downstream of Prado would be increased to 190 years. Average annual benefits, based on October 1987 price levels are as follows:

Annual Benefits	Amount
Flood Damage Prevention	$135,978,000
Recreation	282,000
Total	$136,260,000

FISCAL YEAR 2004: The requested amount will be applied as follows:

Santa Ana Mainstem:	
Continue Construction of Reach 9	1,300,000
Continue Dredging Reach 1	1,000,000
Continue Landscaping Phase IV	1,000,000
Planning, Engineering & Design	1,100,000
Construction Management	408,000
Prado Dam:	
Continue Construction of Embankment	4,290,000
Continue Construction of Outlet	5,000,000
Planning, Engineering & Design	1,000,000
Construction Management	602,000
Total	$15,700,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the following requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Santa Ana River Mainstem: Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	$ 136,513,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	53,471,000	
Pay 5 percent of total project costs allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	58,889,000	$1,173,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	927,000	6,000
San Timoteo Creek: Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	7,308,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	4,585,000	
Pay 19 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	307,000	972,000

Requirements of Local Cooperation(Continued)	Payments During Construction and Reimbursements	Annual Operation Maintenance Repair, Rehabilitation and Replacement Costs
Prado Dam:		
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas.	169,614,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	17,937,000	
Pay 5 percent of total project costs allocated to flood control, and bear all cost of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	21,449,000	200,000
Total Non-Federal Costs	$ 471,000,000	$ 2,351,000

The non-Federal sponsors have also agreed to make all required payments concurrently with project construction

STATUS OF LOCAL COOPERATION: Orange, San Bernardino, and Riverside Counties are the local sponsors. In accordance with Memorandum of Agreement executed on 6 December 1987, Orange County contributed $3 million to assure the project design schedule was maintained. Orange County has received credit for those funds towards their share of the project costs during construction. In addition, Orange County worked with California Department of Transportation (CALTRANS) to relocate some key bridges in Fiscal Year 1988, in advance of project construction. On 14 December 1989, the Local Cooperation Agreement was executed in compliance with the requirements of the Water Resources Development Act of 1986. A supplemental Local Cooperation Agreement was executed on 1 July 1994 for San Timoteo Creek. A draft Local Cost Sharing Agreement for recreation on Santiago Creek has been reviewed and approved by the local sponsor, Orange County, and the Orange County Department of Harbors, Beaches and Parks. Schedules for executing a Project Cooperation Agreement and programming this work are being determined. A Project Cooperation Agreement for Prado Dam is scheduled to be executed in February 2003.

The current non-Federal cost estimate of $471,000,000, which includes a cash contribution of $81,572,000, is an increase of $31,000,000 from the non-Federal cost estimate of $440,000,000 noted in the current amended Local Cooperation Agreement dated August 1999, which included a cash contribution of $57,000,000. Analysis of the non-Federal sponsors' financial capability to participate in the project affirms that Riverside and San Bernardino Counties still have a

STATUS OF LOCAL COOPERATION (Continued)

reasonable and implementable plan for meeting their financial commitments. On 30 June 1997, the Assistant Secretary of the Army (Civil Works) approved Prado Dam as a separable element. On 30 June 1997, direction was given by the Assistant Secretary of the Army (Civil Works) to proceed in accordance with Section 309 (Water Resources Development Act of 1996) to modify the existing Local Cost Sharing Agreement to reflect this determination and the non-Federal cost-sharing be modified in accordance with section 103(a) (3) of Water Resources Development Act of 1996. Construction of this project will primarily provide protection to lands and improvements within Orange County downstream of Prado Reservoir.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $1,020,000,000 is an increase of $44,000,000 from the latest estimate ($976,000,000) presented to Congress (FY 2003). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	$ 3,847,000
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	40,153,000
Total	$44,000,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement was filed with the Environmental protection Agency in June 1989. The Records of Decision (ROD) for Prado Dam and San Timoteo Creek Reach 3B were executed in January 2002.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1979, and funds to initiate construction were appropriated in FY 1990.

Through negotiations with Fish and Wildlife Service on Section 7 consultations for endangered species (Eriastrum below Seven Oaks and least Bell's vireo at Prado Dam), agreement was reached on the number of acres for mitigation. The final biological opinion necessary for formal conclusion of the consultation was received from Fish and Wildlife Service 22 June 1989.

Coordination with the U.S. Fish and Wildlife Service and the California Department of Fish and Game was initiated early in the planning of alternatives and completed 30 March 1989. The coordination produced a Fish and Wildlife Service Coordination Act Report that was included in the Environmental Impact Statement. Numerous coordination meetings were held, and these agencies had a role in the determination of project associated impacts as well as mitigation needs and

opportunities. Estimated fish and wildlife mitigation costs for Seven Oaks Dam are $1,362,000 ($1,266,000 Federal and $96,000 non-Federal), for San Timoteo are $2,708,000 ($2,696,000 Federal and $12,000 non-Federal) and for Lower Santa Ana are $6,713,000 ($6,537,000 Federal and $176,000 non-Federal.)

An agreement was signed on 21 September 1989, in accordance with Section 215 of the Flood Control Act of 1968, to permit Orange County to undertake early partial construction of the Santiago Creek improvements in conjunction with other improvements they are planning for water supply, and to be credited for applicable project construction.

Section 104 of the Energy and Water Development Appropriation Act of 1988 authorized "...San Timoteo Creek in the vicinity of Loma Linda for construction as part of the Santa Ana River Mainstem including Santiago Creek Project... the benefits and costs of the San Timoteo project shall be included together with the benefits and costs of the Santa Ana Mainstem including Santiago Creek. The total costs for the Santa Ana Mainstem, including Santiago Creek, is to be raised by $25,000,000." A special report was approved in May 1994; engineering and design was initiated in Fiscal Year 1991 with funds appropriated for that purpose. Construction was initiated in August 1994 with a portion of the $12,000,000 added for that purpose in FY 1994. Additional funds totaling $17,000,000 has been included in Act Language in Fiscal Years 1995, 1996, and 1997 which were used to complete contract for Reach 2 in September 1997. Also, Act Language for Fiscal Years 1998, 2001 and 2002 has included a cumulative total of $18,000,000.

As a result of local sponsor activities to develop a more environmentally sensitive design for Reach 3, such as a soft-bottom channel, the remainder of the project has been redesigned as Reach 3A (extending to just upstream of Barton Road) and Reach 3B (the remainder of the channel and the in-channel debris control structures). The non-Federal Sponsor has agreed to continue with Reach 3A as per the original design. The Reach 2 construction contract is being modified to accomplish this portion of the work. The Corps is working with the local Sponsor to develop alternatives to the approved plan for Reach 3B. A soft-bottom channel alternative was previously reviewed by the Corps and found to be technically feasible, but not cost effective. Section 103 (k) of Water Resources Development Act of 1986, authorized reimbursement with interest overtime by the non-Federal sponsor over a period of not more than thirty years from the date of completion of the project. $10.6 million will be reimbursed. A loan agreement was approved in April 2001. Reach 3 will be implemented under this provision. A total of $5 million has been paid in Fiscal Year 2001 and the remaining balance of $5.6 million will be paid in Fiscal Years 2003 and 2004.

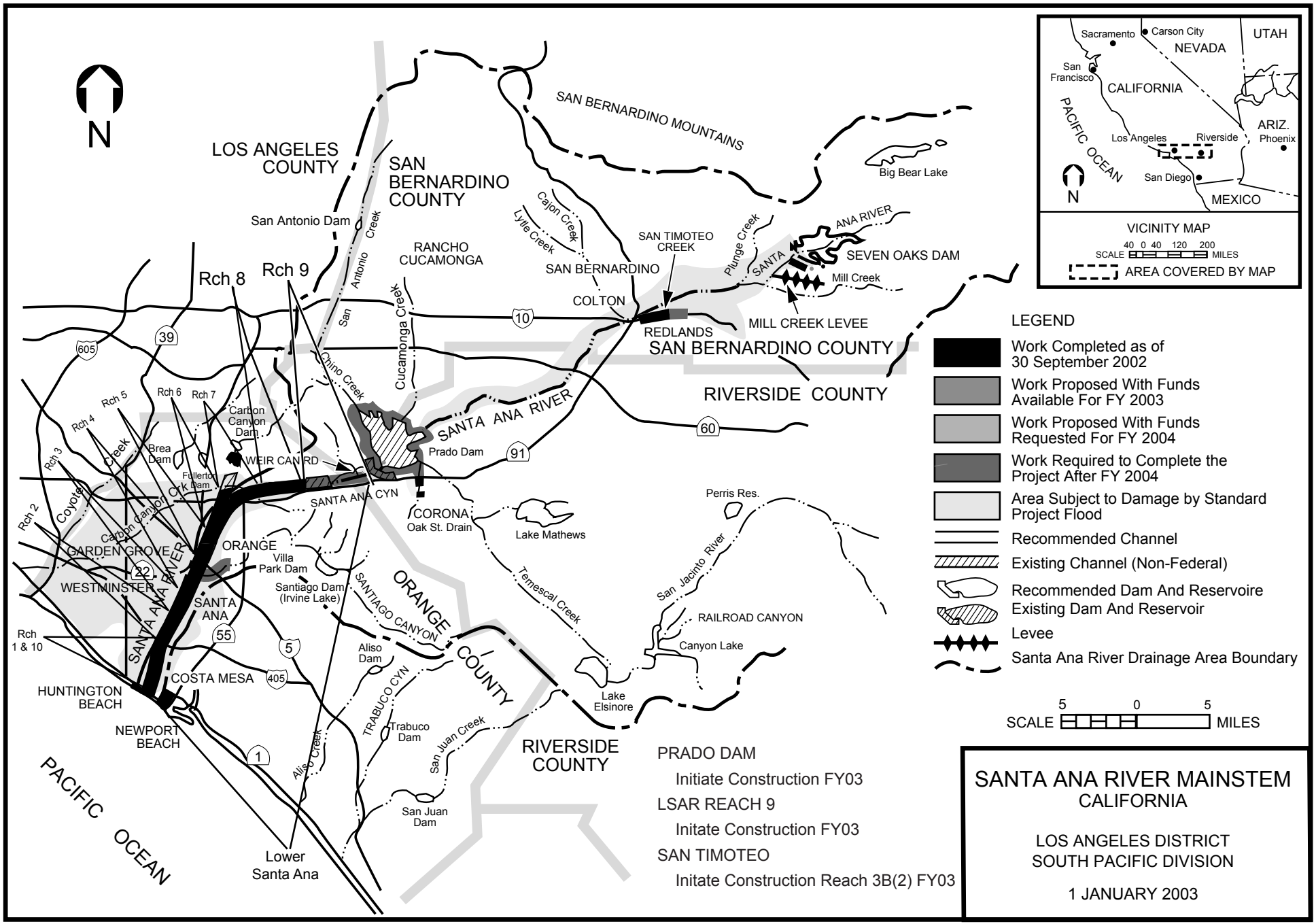
The project effort for enlargement of Prado Dam, as a separable element, was approved in June 1997, with direction to modify the Local Cooperation Agreement to reflect this determination. Funds were provided in Fiscal Year 2000 for initiation of Prado Dam.

The project was modified by the Water Resources Development Act of 1990, which authorized the Secretary to develop recreational trails and facilities on lands between Seven Oaks Dam and Prado Dam, including flood plain management

OTHER INFORMATION (Continued)

areas. These features are not included in the current estimate pending development of plans and determination of costs.

The project was modified by the Water Resources Development Act of 1996, which authorized the Secretary in coordination with the State of California, to provide technical assistance to Orange County, California, in developing appropriate public safety and access improvements associated with that portion of California State Route 71 being relocated for the Prado Dam feature of the project.


N
LOS ANGELES COUNTY
SAN BERNARDINO COUNTY
SAN BERNARDINO MOUNTAINS
Big Bear Lake
San Antonio Dam
San Antonio Creek
RANCHO CUCAMONGA
Cajon Creek
Lytle Creek
SAN TIMOTEO CREEK
Plunge Creek
SANTA ANA RIVER
SEVEN OAKS DAM
Mill Creek
SAN BERNARDINO
COLTON
REDLANDS
MILL CREEK LEVEE
Rch 8
Rch 9
San Antonio Creek
Cucamonga Creek
Chino Creek
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
SANTA ANA RIVER
Prado Dam
WEIR CANYON RD
Carbon Canyon Dam
Brea Dam
Fullerton Ck Dam
Coyote Creek
Carbon Canyon
SANTA ANA CYN
CORONA
Oak St. Drain
Lake Mathews
Perris Res.
GARDEN GROVE
ORANGE
Villa Park Dam
WESTMINSTER
SANTA ANA
Santiago Dam (Irvine Lake)
SANTIAGO CANYON
ORANGE COUNTY
Temescal Creek
San Jacinto River
RAILROAD CANYON
Canyon Lake
Aliso Dam
TRABUCO CYN
Trabuco Dam
San Juan Creek
San Juan Dam
Lake Elsinore
COSTA MESA
HUNTINGTON BEACH
NEWPORT BEACH
PACIFIC OCEAN
Lower Santa Ana
RIVERSIDE COUNTY
605
39
10
60
91
22
55
5
405
1
Sacramento
Carson City
NEVADA
UTAH
San Francisco
CALIFORNIA
ARIZ.
Phoenix
Los Angeles
Riverside
San Diego
MEXICO
PACIFIC OCEAN
VICINITY MAP
40 0 40 120 200
SCALE MILES
AREA COVERED BY MAP
LEGEND
Work Completed as of 30 September 2002
Work Proposed With Funds Available For FY 2003
Work Proposed With Funds Requested For FY 2004
Work Required to Complete the Project After FY 2004
Area Subject to Damage by Standard Project Flood
Recommended Channel
Existing Channel (Non-Federal)
Recommended Dam And Reservoire
Existing Dam And Reservoir
Levee
Santa Ana River Drainage Area Boundary
5 0 5
SCALE MILES
PRADO DAM
Initiate Construction FY03
LSAR REACH 9
Initate Construction FY03
SAN TIMOTEO
Initate Construction Reach 3B(2) FY03
SANTA ANA RIVER MAINSTEM
CALIFORNIA
LOS ANGELES DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: South Sacramento County Streams, California (Continuing)

LOCATION: The South Sacramento County Streams drainage basin lies south and east of the city of Sacramento. Most of the basin is situated in the Sacramento Valley. The eastern-most parts of the basin are in the lower foothills of the Sierra Nevada. A portion of the basin lies within the Sacramento city limits, south of the city center.

DESCRIPTION: The selected plan would include the following principal flood control features: raising and extending the ring levee around the Sacramento Regional Water Treatment Plant (SRWTP); raising the Beach Stone Lakes and Morrison Creek levees; installing floodwalls (using sheet pile) on Morrison Creek, Elder Creek, Florin Creek and Unionhouse Creek, and retrofitting bridges to lower risk of failure due to flooding. Recreation features include a bicycle and pedestrian trail. Restoration of ecosystem at five sites would increase water quality to open water environments and enhance and expand wetlands, riparian vegetation, grasslands, and woodlands.

AUTHORIZATION: Water Resources Development Act of 1999

REMAINING BENEFIT-REMAINING COST RATIO: 4.7 to 1 at 6-5/8 percent.

TOTAL BENEFIT-COST RATIO: 3.9 to 1 at 6-5/8 percent.

INITIAL BENEFIT–COST RATIO: 3.9 to 1 at 6-5/8 percent (FY 2002).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation contained in the Final Feasibility Report dated March 1998 at October 1997 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$47,600,000	Entire Project	Not Started	TBD
Estimated Non-Federal Cost		$25,800,000			
Cash Contribution	$11,050,000				
Other Costs	$14,750,000				
Total Estimated Project Cost		$73,400,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2002	$2,611,000	
Conference Allowance for FY 2003	TBD	
Allocation for FY 2003	TBD	
Allocations through FY 2003	TBD	
Allocation Requested for FY 2004	2,100,000	
Programmed Balance to Complete after FY 2004	TBD	
Unprogrammed Balance to Complete after FY 2004	0	

PHYSICAL DATA

Beach Stone Lakes
- Floodwalls: .4 mile
- Levee Raising: 4.0 miles
- New Levee: 1.3 miles
- Levee improvement: 2.0 miles

Morrison Creek
- Levee raising: .6 miles
- Levee improvement: 3.8 miles
- Floodwalls: 3.8 miles

Florin Creek
- Floodwalls: 3.8 miles

Elder Creek
- Levee improvement: 1.0 miles
- Floodwalls: 2.6 miles

Unionhouse Creek
- Levee improvement: .9 miles
- Floodwalls: 2.0 miles

Bridge Retrofits

Ecosystem Restoration: 285 acres of emergent wetlands, riparian woodland, oak savannah woodland, and perennial grasslands.

Recreation features: 4.5 mile paved bicycle and pedestrian trail with signs, fencing, and benches.

JUSTIFICATION: Significant portions of the area were flooded in 1952, 1955, 1962, 1963, 1967, 1969, 1973, 1982, 1986, 1995, and 1997. In January 1995, the most intense rainfall recorded in the watershed resulted in record flows on Morrison Creek, resulting in flows near or exceeding the 1 in 100 annual event. Levee failure along Morrison, Unionhouse, Elder, and Florin Creeks and the SRWTP and Beach Stone Lakes levees could result in flooding of more than 14,000 acres. Approximately 41,000 structures are within the 500-year floodplain with an estimated value of $5.6 billion. Significant development has occurred in the upper basin, in the Elk Grove area, which is increasing the runoff and potential for flooding. The population of the area is over 100,000 and flooding would result in loss of lives, mainly by drowning from rapid inundation in some areas of the flood plain. Once the floodwaters recede, there would be other impacts on public health and safety. The levees along Morrison Creek and tributaries provide less than a 100-year level of flood protection. The selected plan, known as the Consistent High Protection Plan, would provide a high level

JUSTIFICATION (Continued)

of protection (1 in 500 annual event) to all index areas, including Morrison, Elder, Florin and Unionhouse Creeks and to the Beach Stone Lakes and SRWTP levees. A 1 in 100 annual event would result in nearly $715 million in damages (existing conditions). The average annual benefits at 1997 price levels are as follows:

Annual Benefits	Amount
Flood Control	$19,855,000
Recreation	121,000
Environmental Restoration	440,000
Total	$20,416,000

FISCAL YEAR 2004: The requested amount will be applied as follows:

Initiate construction of floodwalls and levee modifications	$1,200,000
Continue restoration contract	500,000
Planning, Engineering and Design	140,000
Construction Management	260,000
Total	$2,100,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended by Section 202(a) of the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 3,571,000	$
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	11,179,000	345,000
Pay 20 percent of the costs allocated to flood control and environmental restoration to bring the total non-Federal share of flood control and environmental restoration costs to 35 percent as reduced for credit allowed in the amount of $5,910,000 based on prior work (Section 104 of the Water Resources Development Act of 1986), and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control and environmental restoration facilities.	10,350,000	
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	700,000	35,000
Total Non-Federal Costs	$25,800,000	$ 380,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Sacramento Area Flood Control Agency (SAFCA) will act as the non-Federal sponsor for the flood control features of the project. The current non-Federal cost estimate of $25,800,000 includes a cash contribution of $11,050,000. As provided in Section 104 of the Water Resources Development Act of 1986 (PL 99-662), SAFCA applied for credit against their share of the design and construction cost of the project for work carried out after the reconnaissance phase consistent with the ultimately authorized plan. On September 12, 1996, the Assistant Secretary of the Army (Civil Works) approved potential credit for SAFCA, estimated at $7.1 million. The Section 104 credit estimate was revised to $5,910,000 in the South Sacramento County Streams Addendum to the Feasibility Report dated September 1998.

STATUS OF LOCAL COOPERATION (Continued)

On January 15, 1998, SAFCA passed a resolution adopting the Consistent High Protection Plan as the locally preferred plan and indicated their intent to participate as the non-Federal sponsor. This plan would provide a consistent level of protection throughout the study area. SAFCA has established a fund to mitigate project-related hydraulic impacts downstream in the Beach Stone Lakes and Point Pleasant areas. This fund would be approximately $2 million and be borne 100 percent by the non-Federal sponsor.

STATUS OF LOCAL COOPERATION (Continued)

The Project Cooperation Agreement (PCA) for environmental restoration is scheduled to be signed in May 2003 and the PCA for flood control is currently scheduled to be signed in August 2003. The sponsor has a reasonable plan for implementation to meet its financial commitment.

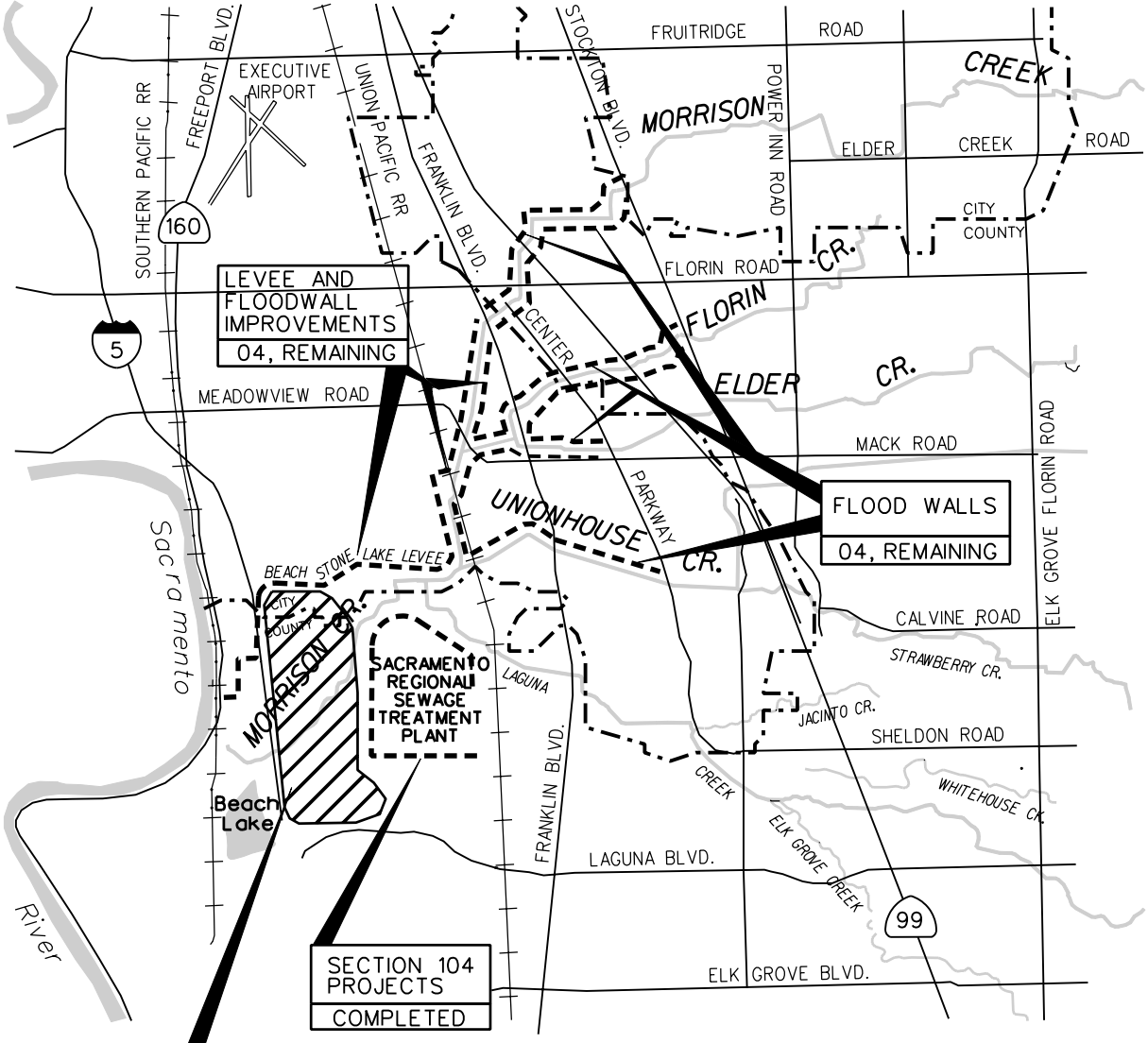
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $47,600,000 is an increase of $1,500,000 from the latest estimate ($46,100,000) presented to Congress (FY 2003). This change includes the following items:

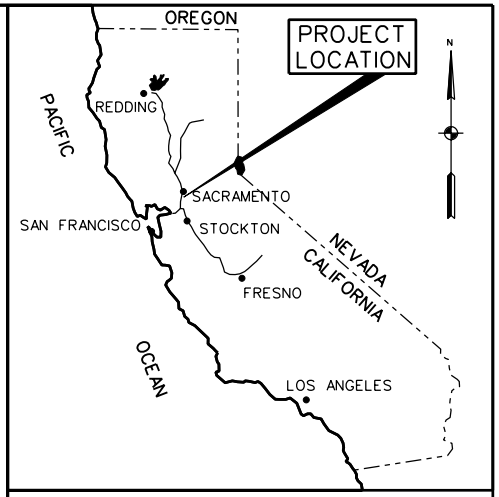
Item	Amount
Price Escalation on Construction features	$ 1,500,000
Total	$ 1,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement/Environmental Impact Report was filed with EPA on 15 May 1998.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in FY 1998 and funds to initiate construction were appropriated in FY 2002.

Fish and Wildlife Mitigation costs are currently estimated at $914,000.





WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2002
03	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
04	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

SOUTH SACRAMENTO COUNTY STREAMS CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Stockton Metropolitan Area, California (Continuing)

LOCATION: The primary project area is in the city of Stockton, California, approximately 40 miles south of Sacramento and 85 miles east of San Francisco. The basin includes a 200 square mile area, extending south from Bear Creek which is located five miles north of Stockton, to Mormon Slough, one mile south of Stockton, and extends West from Jack Tone Road seven miles east of Stockton through the center of the city to the San Joaquin River.

DESCRIPTION: The project provides for reimbursement of the Federal share of design and construction work completed by the local sponsor, San Joaquin Area Flood Control Agency (SJAFCA). Improvements were made to the existing levee system along the Bear Creek System and the Calaveras River System and included modifications to existing levees and construction of new levees and floodwalls. The project will provide 100-year level of flood protection.

AUTHORIZATION: Water Resources Development Act of 1996 Section 211.

REMAINING BENEFIT-REMAINING COST RATIO: Not applicable because project construction is complete.

TOTAL BENEFIT-COST RATIO: 2.0 to 1 at 6-7/8 percent.

INITIAL BENEFIT–COST RATIO: 2.0 to 1 at 6-7/8 percent (FY 2001).

BASIS OF BENEFIT-COST RATIO: Benefits are from the latest available evaluation in the Section 211 Study Report dated August 2000, at 1 October 1998 price levels. Section 211 Study Report was approved 13 July 2001.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$35,700,000	Entire Project	100	March 1999
Estimated Non-Federal Cost		$12,100,000			
Cash Contributions	$ 2,400,000				
Other Costs	9,700,000				
Total Estimated Project Cost		$47,800,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA	
Allocations to 30 September 2002	$10,225,000	0	Levee Raise	25.7 Miles
Conference Allowance for FY 2003	TBD		New Levee Construction	8.8 Miles
Allocation for FY 2003	TBD		Floodwalls:	7.9 Miles
Allocations through FY 2003	TBD			
Allocation Requested for FY 2004	500,000			
Programmed Balance to Complete after FY 2004	TBD			
Unprogrammed Balance to Complete after FY 2004	0			

JUSTIFICATION: After flooding in northern California in 1986, the Federal Emergency Management Agency (FEMA) initiated a restudy of the Stockton area. Draft Flood Insurance Rate Maps (FIRMs) were released delineating a larger 100-year flood plain than previously recorded, affecting the Stockton urban area, approximately 253,000 residents in January 2002. The potential flood damages have increased significantly because of rapid growth and development during the 1980's and 1990's. The potential cost to the Stockton area, as a result of the proposed FIRMs, was estimated by the City of Stockton to be at least $30 million annually. As a result, the Corps was directed to identify flood problems and provide solutions for the study area. Three main study systems were identified in the project area: the Bear Creek system, the Calaveras River system and Lower Mosher Slough. Along the Bear Creek and Calaveras River systems, a total of approximately 26 miles of levees were raised and approximately 9 miles of new levees and 8 miles of floodwalls were constructed. A separable element analysis conducted for the Bear Creek and Calaveras River systems validated that they are individually economically feasible and therefore included as part of the Corps Federal Project. With the exception of Lower Mosher Slough ($4.3 million), parts of Upper Mosher Creek ($.8 million), Upper Calaveras River ($3.2 million), and $.8 million permitting costs, all reaches included in the Locally Constructed Project are included in the Corps Federally Based Plan. The total cost of the Locally Constructed Project is $56.9 million. The total cost for the Federally based Plan is $47.8 million. Average annual benefits for flood control are $8,206,000 at 1998 price levels.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Continue Local Sponsor Reimbursement - Flood Control	$500,000
Total	$500,000

NON-FEDERAL COSTS: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 8,900,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	800,000	
Pay 5 percent of the costs allocated to flood control and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	2,400,000	413,000
Total Non-Federal Costs	$12,100,000	$413,000

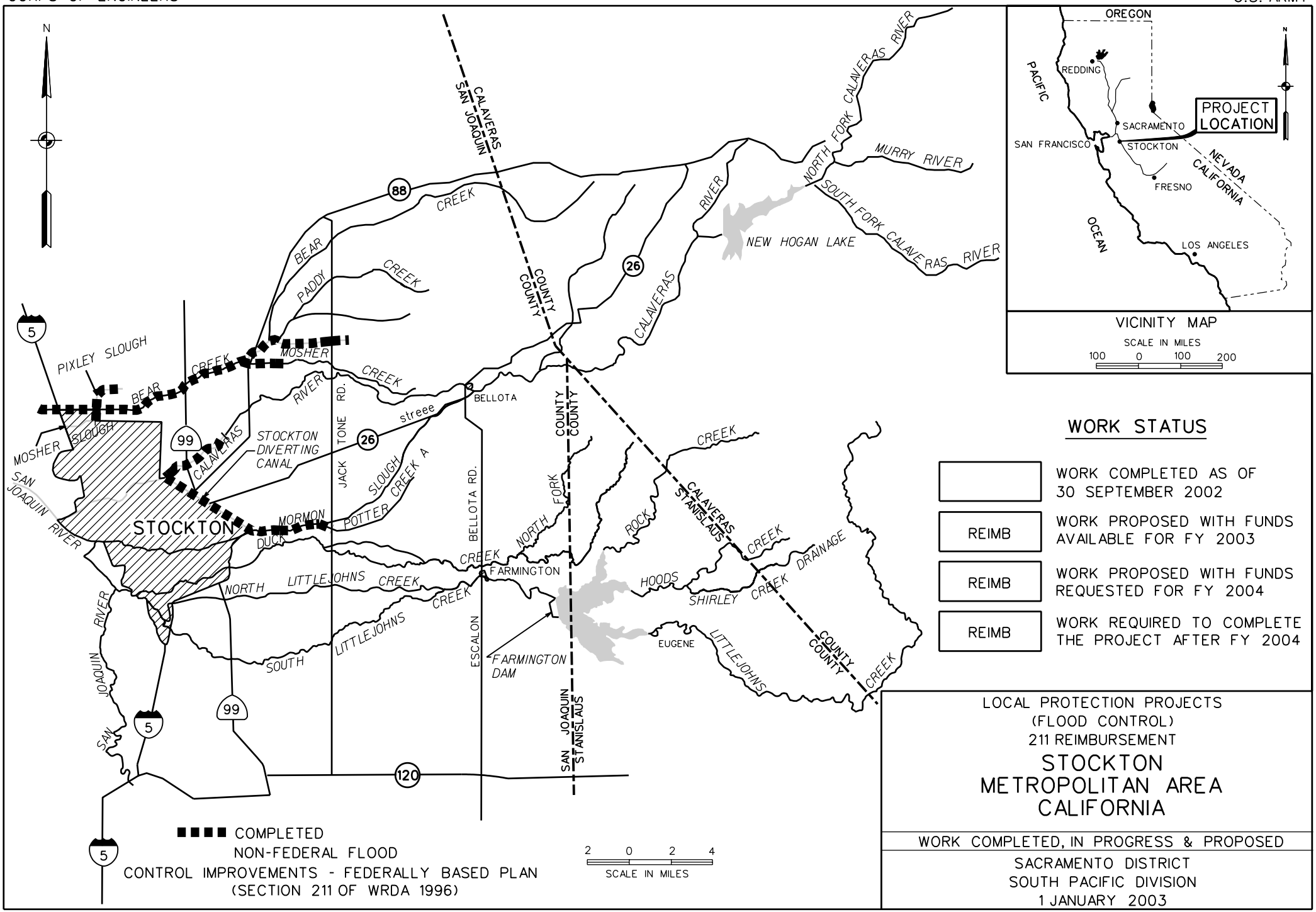
STATUS OF LOCAL COOPERATION: SJAFCA completed construction of the flood control project in March 1999 at 100 percent local cost. SJAFCA is seeking reimbursement for portions of the project with Federal interest. The Memorandum of Agreement was signed 2 March 2002.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $35,700,000 is the same as the latest estimate presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT REPORT: The Environmental Impact Report (EIR) was issued in 1996 for the San Joaquin Area Flood Control Agency project in accordance with the California Environmental Quality Act. A Final Supplemental EIR was issued in July 1997.

OTHER INFORMATION: Funds to initiate reimbursement were appropriated in FY 2001. The Section 211 report concluded that $9.1 million of SJAFCA's costs for the locally constructed project are not eligible for reimbursement. Improvements to the Lower Mosher Slough Area, approximately 12,100 feet of the Upper Calaveras River, and 3,300 feet of the Upper Mosher Creek, are not eligible for reimbursement under the Federally Based Plan. These areas did not meet the Corps of Engineers minimum flow criteria for participation in flood damage reduction projects.

An initial reimbursement of $7,000,000 was made on 21 March 2002 and an additional $3,000,000 was reimbursed 23 September 2002 for a total reimbursement of $10,000,000.



WORK STATUS

	WORK COMPLETED AS OF 30 SEPTEMBER 2002
REIMB	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
REIMB	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REIMB	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)
211 REIMBURSEMENT

STOCKTON METROPOLITAN AREA CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

14 January 2003
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3 February 2003

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Tule River, California (Continuing)

LOCATION: The project is located within the Tulare Lake Basin in the southeastern portion of the San Joaquin Valley between the cities of Fresno and Bakersfield, California.

DESCRIPTION: Success Lake Dam was completed in 1961, and has provided limited flood protection to Porterville and other rapidly developing urban areas along the Tule River. The project plan is to enlarge Success Lake by 28,000 acre-feet by raising the spillway 10 feet to provide additional flood control and water conservation space.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT-REMAINING COST RATIO: 1.3 to 1 at 6-5/8 percent.

TOTAL BENEFIT-COST RATIO: 1.2 to 1 at 6-5/8 percent.

INITIAL BENEFIT-COST RATIO: 1.2 to 1 at 6-5/8 percent. (FY 2002)

BASIS OF BENEFIT-COST RATIO: Initial benefits are from the Final Feasibility Report dated September 1999 and approved in December 1999 at 1999 price levels. Current benefits are from the Tule River, Success Lake Enlargement Project Reassessment and Economic Update dated September 2002 at October 2002 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$17,000,000	Entire Project	0	TBD
Estimated Non-Federal Cost		8,300,000			
Cash Contribution	$ 1,950,000				
Other Costs	6,350,000				
Total Estimated Project Cost		$25,300,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2002	$ 760,000	
Conference Allowance for FY 2003	TBD	
Allocation for FY 2003	TBD	
Allocations through FY 2003	TBD	
Allocation Requested for FY 2004	$ 1,600,000	
Programmed Balance to Complete after FY 2004	$ TBD	

PHYSICAL DATA

Spillway: Type – Ogee Weir along reconstructed spillway.

Crest height – 662.5 feet

Capacity - Increase by 28,000 to total of 110,300

Downstream and Upstream Mitigation

D/S – 247 acres - Levee construction on interior of mitigation site

82 acres – Riparian forest

100 plantings of oak trees

425 acres preservation annual grassland

150 acres Atriplex grassland

JUSTIFICATION: The Tule River originates in the Sierra Nevada mountains and drains about 393 square miles into Success Lake. From Success Lake it passes near the city of Porterville, with a population of about 35,500, as it flows west into the Tulare Lakebed. Success Dam was completed in 1961 to provide flood control and irrigation water supply. However, significant flood damages to communities and highly developed agricultural lands along the Tule River have continued to occur. Flood releases beyond Success Dam capacity have contributed to flood damages to agricultural lands in the Tulare Lakebed. The December 1966 rainflood exceeded the design capacity of Success Dam and floodflows passing downstream of the dam resulted in about $1.5 million in damages below the dam, under conditions and prices at that time. These downstream flows peaked at about 9,050 cubic feet per second and inundated about 24,800 acres. The flooding in 1978 caused extensive and widespread damages to properties in the Tulare Lakebed area where losses attributed to the Tule River were estimated at $662,500. In 1983 the lake again filled and excess floodflows caused damages of about $360,000 along Tule River. Flood damages further downstream in the Tulare lakebed were extremely severe and widespread and damages attributed to the Tule River were nearly $7.5 million. During this flood, local interests pumped flood releases into the Friant-Kern canal to disperse aqueduct intertie. Had this action not occurred, Tulare lakebed damages would have been greater. The project includes enlarging Success Lake by 28,000 acre-feet. The average annual benefits at 2002 price levels are as follows:

Annual Benefits	Amount
Flood Control	$1,889,000
Water Supply	137,000
Recreation	(31,000)
Employment	64,000
Power	53,000
Total	$2,112,000

FISCAL YEAR 2004: The requested amount will be applied as follows:

Initiate Spillway Modification Contract	$ 100,000
Initiate and Complete Mitigation Contract	900,000
Lands and Damages Certification	50,000
Planning, Engineering, and Design	500,000
Construction Management	50,000
Total	$ 1,600,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended by Section 202(a) of the Water Resources Development Act of 1996, the non-Federal sponsor must comply with the requirements listed below:

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Requirements of Local Cooperation		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas for flood control.	$ 3,750,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities where necessary for the construction of the project for flood control.	2,160,000	
Pay 35 percent of the costs allocated to irrigation water supply ($1,650,000) to bring the total non-Federal share of irrigation water supply costs to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of water supply facilities. (payment includes $280,000 for lands, $160,000 for relocations, and $138,000 for cash contribution).	578,000	$ 12,800

Requirements of Local Cooperation (Continued)

	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay 10 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 35 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	1,790,000	171,200
Pay 1.425 percent of the costs allocated to Dam Safety Assurance Program, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of dam safety facilities.	23,000	0
Total Non-Federal Costs	$ 8,300,000	$184,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

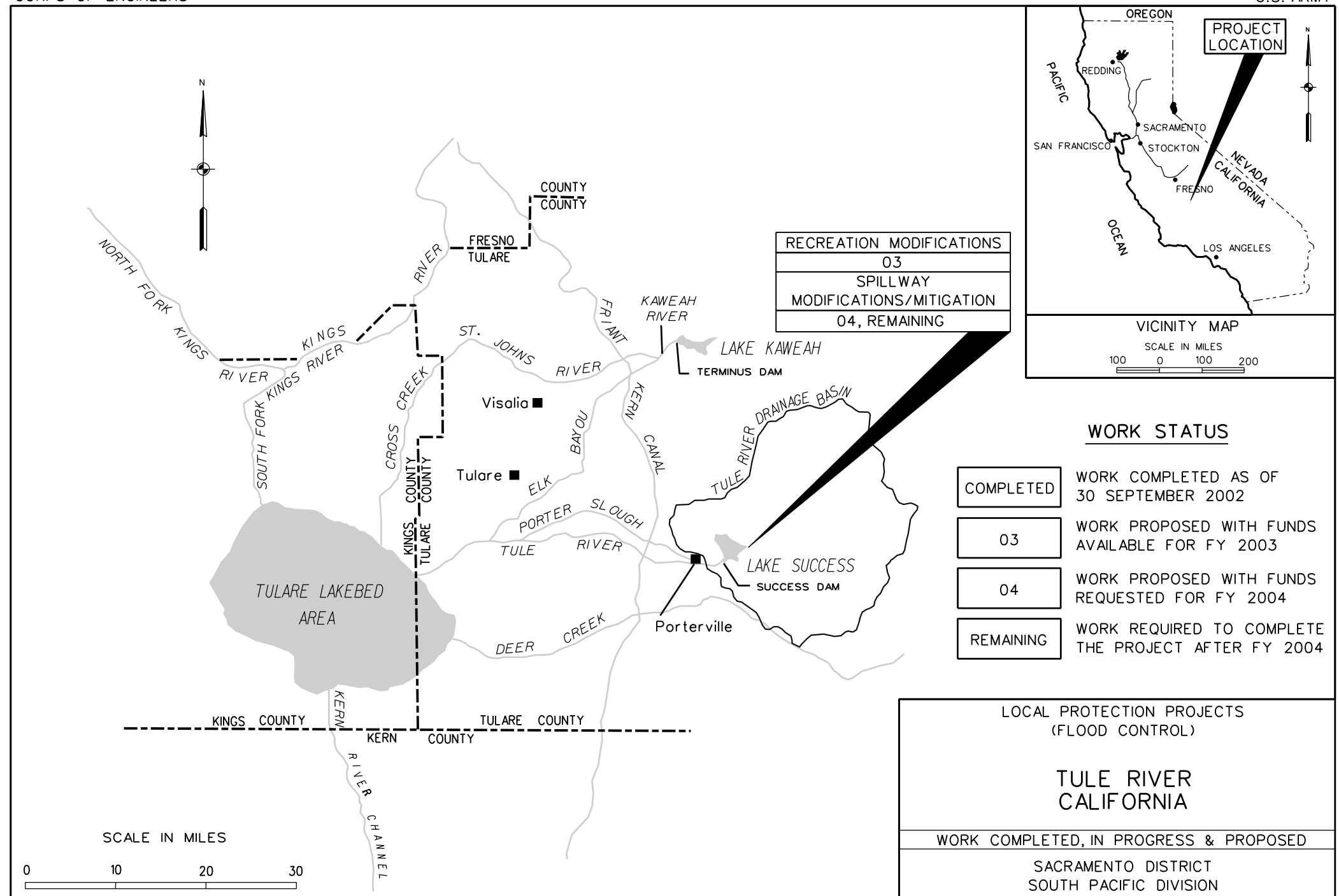
STATUS OF LOCAL COOPERATION: The California State Reclamation Board and the Lower Tule River Irrigation District are the non-Federal sponsors. The Project Cooperation Agreement is scheduled to be signed March 2003.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $17,000,000 is the initial estimate to be presented to Congress for appropriations.

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement (EIS) was filed with Environmental Protection Agency on 15 October 1999.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design (PED) were appropriated in FY 1999 and funds to initiate construction were appropriated in FY 2002. Award of the first construction contract is scheduled for April 2003.

The fish and wildlife mitigation cost is estimated at $3,090,000.



RECREATION MODIFICATIONS
03
SPILLWAY MODIFICATIONS/MITIGATION
04, REMAINING

WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2002
03	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
04	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

TULE RIVER
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

14 January 2003
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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Upper Sacramento Area Levee Reconstruction, California (Continuing)

LOCATION: The project is located within the boundaries of the Sacramento River Flood Control System in Colusa County in north-central California. The area includes the upper Sacramento River and its tributaries and the city of Colusa.

DESCRIPTION: An evaluation of about 315 miles of the Sacramento River Flood Control Project levees in the Upper Sacramento area identified about 12 miles of levees that are structurally deficient. The project includes reconstructing 3.7 miles of these levees by installing landside seepage/stability berms with toe drains, slurry cut-off walls, and developing land for fish and wildlife mitigation.

AUTHORIZATION: Flood Control Acts of 1917, 1928, and 1941; River and Harbor Act of 1937.

REMAINING BENEFIT-REMAINING COST RATIO: 6.8 to 1 at 7 3/4 percent.

TOTAL BENEFIT-COST RATIO: 1.3 to 1 at 7 3/4 percent.

INITIAL BENEFIT-COST RATIO: 5.4 to 1 at 7-3/4 percent (FY 1997).

BASIS OF BENEFIT-COST RATIO: Initial benefits were from the Sacramento River Flood Control Project, Upper Sacramento Area, Phase V Design Memorandum dated August 1997. Current benefits are from the latest available evaluation contained in the Limited Reevaluation Report (LRR) for the Sacramento River Flood Control Project, California - Upper Sacramento Area, Phase V dated September 2002 at October 2001 price levels.

SUMMARIZED FINANCIAL DATA			STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$7,800,000	Entire Project	20	TBD
Estimated Non-Federal Cost		2,600,000			
Cash Contribution	$1,340,000				
Sec. 215 Work	179,000				
Other Costs	1,081,000				
Total Estimated Project Cost		$10,400,000			

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST	PHYSICAL DATA	
Allocations to 30 September 2002	$ 3,180,000	1/		
Conference Allowance for FY 2003	TBD		Levee Reconstruction: Colusa Area	
Allocation for FY 2003	TBD		Length	- 3.7 miles
Allocations through FY 2003	TBD		Fish and Wildlife Mitigation	– 1.3 miles
Allocation Requested for FY 2004	1,000,000			
Programmed Balance to Complete after FY 2004	TBD			
Unprogammed Balance to Complete after FY 2004	0			

1/ Funding of $1,287,000 included in the Sacramento River Flood Control Project and reallocated to the Upper Sacramento Area Levee Reconstruction Project.

JUSTIFICATION: Levee evaluation studies of approximately 315 miles of project levees have been completed in Butte, Colusa, Glenn, Sutter, Tehama and Yolo Counties. Results indicate that structural problems caused by ongoing seepage and levee subsidence exist. Reconstruction will be required to maintain the integrity of the existing Sacramento River Flood Control Project and assure the system continues to provide the original design levels of flood protection. The levees were locally constructed and incorporated into the project levee system when it was authorized in 1917. Prior to flood control, the Colusa and Sutter Basins were flooded and acted as storage areas whenever high water occurred. During the floods of 1907 and 1909, the entire Sutter and Colusa Basins were under water. The old town of Colusa is elevated and was not inundated in the 1907 flood but was surrounded by floodwaters. The winter of 1982-83 has been described as California's wettest winter in more than a century and resulted in a disastrous year of flooding. Of California's 58 counties, 45 were declared national disaster areas including six in the Upper Sacramento area. During the 1986 flood, a number of sites in the Colusa area exhibited seepage, one site had water within one foot of the levee crown and another site had seepage at a levee setback which has been riprapped three times due to erosion. During high flows in January and March 1995, considerable seepage and boils developed on the Sacramento River in Colusa County. If a levee break occurred at the west end of the site, adjacent to the City of Colusa, floodwaters would inundate much of the town, especially newly constructed areas east and south of the old town. During the recent floods of January 1997, high water in the Sutter Bypass caused a levee break threatening the town of Meridian in Sutter County. Locals placed visqueen with sandbags to protect the levee from erosion. A ring levee was constructed around the town of Meridian under emergency construction authority. The areas protected by the levees comprise over 70,000 acres, mostly agriculture, and about 2,600 structures, primarily residential and commercial, with a population of about 5,600. The project will restore design level of flood protection. The value of property the project will protect is estimated at $364 million. Estimated average annual flood damages are $2.6 million. Average annual benefits, all flood control, are estimated at $1,300,000 at October 2001 price levels.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Continue Crediting of non-Federal Lands	$ 23,000
Continue Levee Reconstruction Contract	765,000
Complete Mitigation Contract	54,000
Planning, Engineering, and Design	83,000
Construction Management	75,000
Total	$1,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 992,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	89,000	
Pay 15 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsor's ability to pay, as reduced for credit allowed based on prior year work ($179,000 credit under Section 215 of the Flood Control Act of 1968), and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	1,519,000	$ 0 2/
Total Non-Federal Costs	$2,600,000	$ 0

2/ Reconstruction will reduce, not increase, annual operation and maintenance costs. Operation and maintenance costs are included in original Sacramento River Flood Control Project and are the responsibility of the non-Federal interests.

NON-FEDERAL COST (Continued)

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California State Reclamation Board will act as the local sponsor for reconstruction work. A Project Cooperation Agreement was signed on 17 March 2000.

A Section 215 Agreement for construction of a portion of the authorized project by the local sponsor was executed on 22 September 1997 and limits Federal credit/reimbursement to no more than $5,000,000, or 1 percent of total project costs, whichever is greater. In FY 1998 the local sponsor completed construction of 1,000 lineal feet of stability berm for the west bank levee along the Sacramento River including construction of a toe drain (Site E) for a total cost of $179,000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $7,800,000 is an increase of $690,000 from the latest estimate ($7,110,000) presented to Congress (FY 2003). This change includes the following items.

Item	Amount
Price Escalation on Construction Features	$ 476,000
Design Changes	214,000
Total	$ 690,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The original Sacramento River Flood Control Project was substantially complete prior to the National Environmental Policy Act of 1969. An Environmental Impact Statement (EIS) was not prepared. A Programmatic Environmental Impact Statement/Environmental Impact Report (EIS/EIR) on the levee reconstruction for the Marysville/Yuba City Area, Mid-Valley Area, Lower Sacramento Area and Upper Sacramento Area, the remaining four phases of the Sacramento River Flood Control System Evaluation, was filed with EPA on 19 June 1992 and the Record of Decision was signed 4 November 1992. The Programmatic EIS/EIR discusses the environmental impacts resulting from potential work for the entire area in general terms. The Finding of No Significant Impacts (FONSI) was signed on 8 May 1997.

OTHER INFORMATION: Following the record high flows of February 1986, Operations and Maintenance funds were provided under Inspection of Completed Works to perform an evaluation of the integrity of the Sacramento River Flood Control System. A five-phase program which divided the system into five study areas was developed. In each phase, the structural stability of the levees was examined and a determination made as to whether the system was functioning at its design level. The results of each study phase were submitted as an Initial Appraisal Report (IAR).

The IAR for the Upper Sacramento Area dated May 1995 was approved in August 1995. Engineering and design was initiated in FY 1996 (Sacramento River Flood Control Project, California). Funds to initiate construction were appropriated in FY 1997. Of the three deficient areas evaluated in the IAR, one is economically feasible based on an incremental

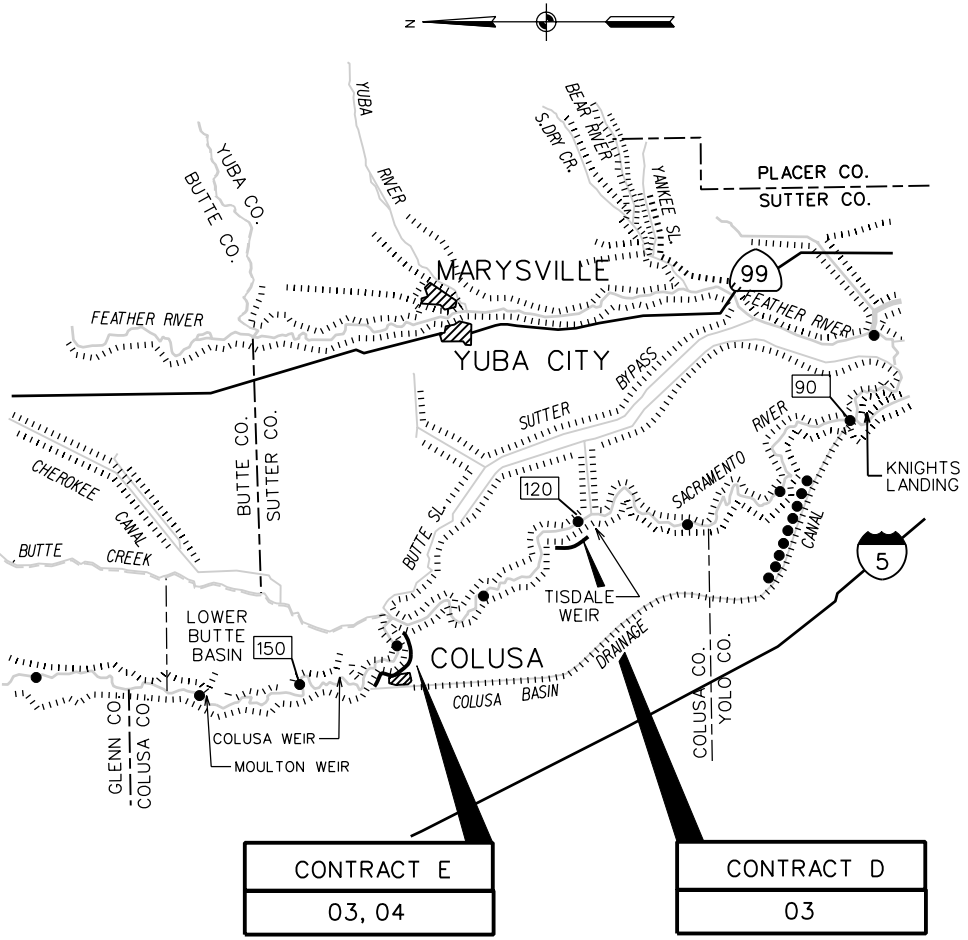
OTHER INFORMATION (Continued)

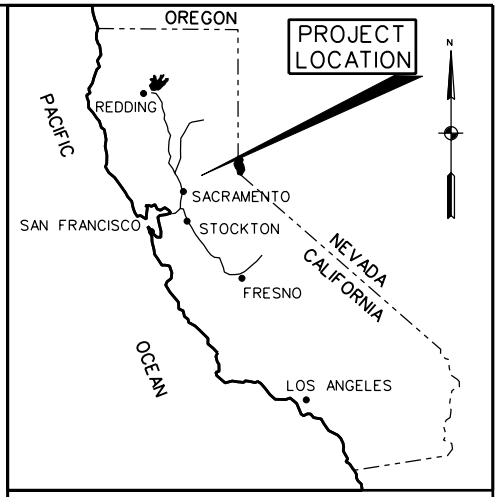
analysis. This area includes two sites (D and E) in the Colusa area at Sacramento River Mile 119.1 to 119.6 right bank and 140.0 to 143.17 right bank. The local sponsor contends that economic justification should be based on a system evaluation which would compare total cost of all required levee reconstruction of the Sacramento River Flood Control Project and total benefits attributable to that work. The rationale is based on the fact that the Operations and Maintenance procedures were formulated for the system to function as a whole. A LRR was completed in September 1993, approved in March l994, and revised in May 1995 for the economic analysis for all five phases of the Sacramento River Flood Control System Evaluation. A second LRR was completed and approved in September 2002 for an updated economic analysis of the Upper Sacramento Area of the Sacramento River Flood Control System (Phase V). The Colusa area remains economically feasible.

Based on damages from the January 1997 floods, a supplemental Design Memorandum is being prepared to evaluate additional sites for reconstruction consideration. Funding available under Public Law 84-99 was used to repair sites specifically damaged by these floods. If additional reconstruction sites are identified in a supplemental Design Memorandum, project cost will increase and completion schedules will be extended.

The fish and wildlife mitigation cost is estimated at $173,000.

The first levee reconstruction contract, Site D, was awarded in September 2002. Remaining levee reconstruction and mitigation contracts are scheduled to award in the Summer of FY 2003.





WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2002
03	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
04	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

LEGEND

- LEVEE SYSTEM
- LOCATION OF LEVEE RECONSTRUCTION (INCREMENTALLY FEASIBLE)
- LOCATION OF LEVEE RECONSTRUCTION (INCREMENTALLY INFEASIBLE)
- 90 RIVER MILES

5 0 5 10 15 20
SCALE IN MILES

* ITEMS NOT SHOWN

* MITIGATION CONTRACT
03, 04

* SUPP. DM
03

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)

UPPER SACRAMENTO AREA - PH V & LEVEE RECONSTRUCTION CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

14 January 2003
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APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Tropicana and Flamingo Washes, Nevada (Continuing)

LOCATION: The project area is located west of and through the urbanized Las Vegas area along both Tropicana and Flamingo Washes in Clark County, southern Nevada. The washes emanate from the surrounding mountains and flow eastward through the developed rural and urban downtown areas to the confluence with Las Vegas Wash.

DESCRIPTION: The recommended plan will provide urban flood reduction, erosion control and wildlife enhancement for portions of Las Vegas and the surrounding areas to the west and southwest, including the rapidly developing alluvial fan immediately west of Las Vegas. The plan recommends construction of three debris basins, three detention basins, modifications to two existing detention basins, 28 miles of channels connecting these project elements, environmental mitigation, and recreation facilities. This system of basins will accept the flows from the primary channels, collect and detain them, and then release them at non-damaging rates of flow from Tropicana Detention Basin. A system of three debris basins will trap large bedloads and prevent erosion damage to the project. Environmental mitigation features include compensation for disturbance to the threatened desert tortoise and other impacted significant terrestrial resources. Recreation facilities will include hiking, bicycle and equestrian trails, and picnic areas around the detention basins.

AUTHORIZATION: Section 101(13) of the Water Resources Development Act of 1992, Section 211(f)(5) of the Water Resources Development Act of 1996, Section 370 of the Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: 7.2 to 1 at 8-1/2 percent.

TOTAL BENEFIT-COST RATIO: 1.2 to 1 at 8-1/2 percent.

INITIAL BENEFIT-COST RATIO: 1.2 to 1 at 8-1/2 percent (FY 1994).

BASIS OF BENEFIT-COST RATIO: The benefit-cost ratio is based on the Chief of Engineers' Report dated January 1992, at 1991 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 Jan 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 215,300,000		Channels	65	TBD
Estimated Non-Federal Cost		75,700,000	1/	Detention Basins	75	Sep 2004
Cash Contributions	$ 35,500,000			Debris Basins	0	TBD
Other Costs	40,200,000			Recreation Facilities	0	Indefinite
Total Estimated Project Cost		$ 291,000,000		Mitigation	100	Sep 1995
				Entire Project	66	TBD
Allocations to 30 September 2002		$ 139,252,000				
Conference Allowance for FY 2003		TBD				
Allocation for FY 2003		TBD				
Allocations through FY 2003		TBD				
Allocation Requested for FY 2004		23,300,000				
Programmed Balance to Complete after FY 2004		TBD				
Unprogrammed Balance to Complete after FY 2004		TBD				

1/ Excludes the cost of the lateral collector system. (See STATUS OF LOCAL COOPERATION.)

PHYSICAL DATA

PRIMARY CHANNELS (Trapezoidal concrete)

RED ROCK CHANNELS:

LOWER RED ROCK CHANNEL COMPLEX
Length: 0.5 mile
Base Width: 10-20 feet
Depth: 15 feet

UPPER RED ROCK CHANNEL
Length: 0.4 mile
Base Width: 5-10 feet
Depth: 10 feet

RED ROCK BELTWAY CHANNELS
Segment 8
Length: 1 mile
Base Width: 10-20 feet
Depth: 10 feet

Segment 9
Length: 1.9 miles
Base Width: 5-15 feet

Segment 10A
Length: 2.7 miles
Base Width: 5-15 feet
Depth: 10 feet

PHYSICAL DATA (Continued)

BLUE DIAMOND CHANNELS:

LOWER BLUE DIAMOND CHANNEL
Length: 1.5 miles
Base Width: 10-20 feet
Depth: 15 feet

BLUE DIAMOND BELTWAY CHANNEL
Segment 7A
Length: 2 miles
Base Width: 5-15 feet
Depth: 10 feet

Segment 7B
Length: 1.6 miles
Base Width: 10-20 feet
Depth: 15 feet

UPPER BLUE DIAMOND CHANNEL
Length: 2.9 miles
Base Width: 5-15 feet
Depth: 10 feet

FLAMINGO DIVERSION CHANNELS:

LOWER FLAMINGO CHANNEL
Length: 1.6 miles
Base Width: 9-25 feet
Depth: 7-21 feet

UPPER FLAMINGO CHANNEL
Length: 2.1 miles
Base Width: 13-29.5 feet
Depth: 7-13.7 feet

TROPICANA OUTLET CHANNEL:
Length: 1.5 miles
Base Width: 5 feet
Depth: 10 feet

R-4, F-1, F-2 AND F-4 CHANNELS:
Length: 8.9 miles (total)
R-4: 1.6 miles F-2: 1 miles
F-1: 3.1 miles F-4: 3.2 miles
Base Width: 5 feet Depth: 10 feet

DEBRIS BASINS

F-1 DEBRIS BASIN
Type: Basin/earthfill embankment combination, with dumpstone-revetted embankment
Maximum Height: 30 feet
Length: 700 feet
Basin Capacity: 75 acre-feet

F-2 DEBRIS BASIN
Type: Basin/earthfill embankment combination, with dumpstone-revetted embankment
Maximum Height: 35 feet
Basin Capacity: 17 acre-feet

F-4 DEBRIS BASIN
Type: Basin/earthfill embankment combination, with dumpstone-revetted embankment
Maximum Height: 25 feet
Basin Capacity: 20 acre-feet

PHYSICAL DATA (Continued)

DETENTION BASINS

RED ROCK DETENTION BASIN MODIFICATION
Type: Compacted earthfill embankment
Maximum Height: 60 feet
Length: 4,000 feet
Spillway Length: 940 feet (600 existing, 340 auxiliary)
Basin Capacity: 2,162 acre-feet

FLAMINGO DETENTION BASIN MODIFICATION
Type: Compacted earthfill embankment
Maximum Height: 38 feet
Length: 4,800 feet
Spillway Length: 180-foot-wide labyrinth
Spillway Elevation: 2470.5 feet NGVD
Basin Capacity: 1,706 acre-feet

BLUE DIAMOND DETENTION BASIN
Type: Roller compacted concrete
Maximum Height: 49 feet
Outlet Discharge: 180 cfs
Length: 6,524 feet
Crest Elevation: 2,869 feet NGVD
Basin Capacity: 2,224 acre-feet

R-4 DETENTION BASIN
Type: Compacted earthfill embankment
Maximum Height: 38 feet
Length: 2,000 feet
Outlet discharge: 360 cfs
Spillway length: 835 feet RCC stepped
Spillway elevation: 3075.78 feet NGVD
Basin Capacity: 391 acre-feet

TROPICANA DETENTION BASIN
Type: Compacted earthfill embankment/roller compacted concrete
Maximum Height: 10 feet
Outlet Discharge: 500 cfs
Length: 3,300 feet
Spillway Length: 3,300 feet
Spillway Elevation: 2,290 feet NGVD
Basin Capacity: 825 acre-feet

RECREATION FACILITIES
Picnic areas around detention basins
Trails: Hiking, bicycle and equestrian

MITIGATION
Habitat of threatened desert tortoise
Permanent disturbance: 730 acres
Temporary disturbance: 215 acres

JUSTIFICATION: Construction of the authorized plan would provide a 100-year level of flood protection to the developing alluvial fan area and to portions of the existing developed urban community. The population of the Las Vegas Valley has increased from 94,000 in 1959 to over 1.4 million in 2000 and is expected to exceed 2 million by the year 2015, greatly increasing the potential for and severity of urban flood damages along Tropicana and Flamingo Washes. The present value of structures and contents in the overflow area is about $2.5 billion. Most major flooding events result from heavy local summer thunderstorms. The July 1975 flood caused $5 million in damages, $15.3 million at 2002 prices, throughout the greater Las Vegas communities. The severity of the July and August 1984 flooding and associated damages, estimated at $6.5 million, $9.9 million at 2002 prices, resulted in a Presidential Disaster Declaration for Clark County, including the Las Vegas Valley, in September 1984. Clark County also passed an emergency $15 million bond issue to deal with the flooding problem. In June 1985, the Clark County Regional Flood Control District was created by the Nevada State Legislature to provide an effective organization to address the flood problems in Clark County. The flood control district completed a Flood Control Master Plan in May 1986, which identifies a recommended plan for the Las Vegas Valley. The floods of June-July 1990 caused three fatalities and approximately $7.6 million in damages, $10.2 million at 2002 prices. The flood of July 1999 exceeded a 100-year storm event, caused two fatalities and approximately $21 million in damages to residential areas and businesses. Minimal damage occurred to Lower Blue Diamond Channel. The severity of this flood resulted in a Presidential Disaster Declaration for Clark County and immediate mobilization of the Emergency Management Agency and the Corps of Engineers disaster teams. The partially complete Tropicana and Flamingo Washes Project performed well and sustained no significant damage. Practically all of these damages would have been prevented had the project been in full operation. Average annual benefits, at October 1991 price levels, are $27,000,000, all flood control. The project will provide a 100-year level of flood protection. Future benefits are more than 20 percent of total project benefits. Future benefits are based on savings in future flood proofing costs which would be incurred without the project. The project does not directly or indirectly induce floodplain development.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Initiate construction of Flamingo Detention Basin	$ 426,000
Initiate construction of F4 Debris Basin and Channel	4,964,000
Continue construction of Upper Blue Diamond Wash and Channel	6,949,000
Complete construction of Upper Flamingo Diversion Channel	6,719,000
Complete construction of F-1/F-2 Debris Basin and Div Channel	1,515,000
Planning, Engineering and Design	1,400,000
Construction Management	1,327,000
Total	$23,300,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Provide lands, easements, rights-of-way, and borrow and excavated or dredged material disposal areas (including mitigation).	$38,143,000	$
Modify or relocate utilities, roads, bridges (except railroad (bridges), and other facilities, where necessary for the construction of the project.	2,057,000	
Pay 10.4 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, as determined under Section 103(m) of the Water Resources Development Act of 1986 to reflect the non-Federal sponsors' ability to pay as reduced for credit allowed based on prior work (Section 104 of the Water Resources Development Act of 1986) and bear all costs of operation, maintenance, repair rehabilitation and replacement of flood control facilities.	28,300,000	600,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	7,200,000	
Total Non-Federal Project Costs	$75,700,000	$ 600,000

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Clark County Regional Flood Control District and the Department of Public Works are the local sponsors for flood control. The Clark County Comprehensive Planning Department is the potential local sponsor for the recreation feature. The Project Cooperation Agreement for flood control was executed on 7 February 1995. The current non-Federal cost estimate of $68.5 million for flood control, which includes a cash contribution of

STATUS OF LOCAL COOPERATION (Continued)

$28.3 million, is an increase of $7.4 million from the non-Federal cost estimate of $61.1 million noted in the flood control Project Cooperation Agreement, which included a cash contribution of $45.1 million. The cash contribution is being partially offset by a credit of $9.9 million allowed for locally constructed flood control work determined to be in accordance with Section 104 of the Water Resources Development Act of 1986. The Section 211 Amendment to the Project Cooperation Agreement was signed on 17 December 1999. The non-Federal sponsor is constructing the lateral collector system, which will exceed $18 million. The Project Cooperation Agreement for recreation is currently unscheduled.

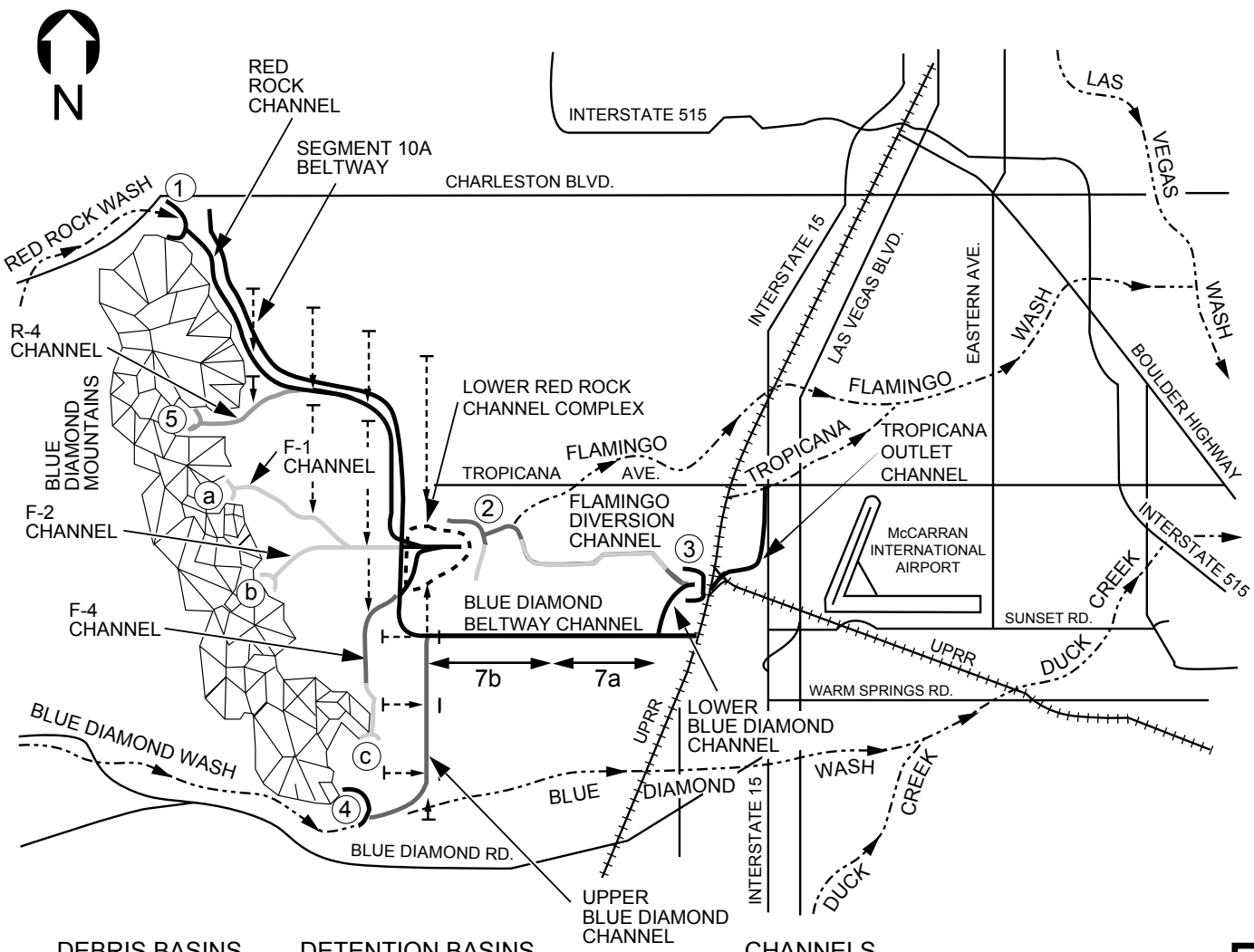
COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $215,300,000 is an increase of $500,000 from the latest estimate ($241,800,000) presented to Congress (FY 2003). This increase is due to post contract award and other estimating adjustments (including contingency adjustments).

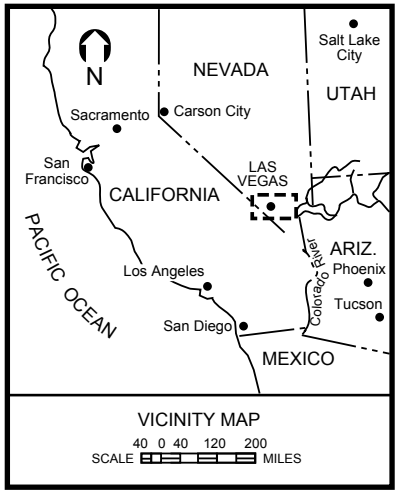
STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final environmental impact statement was filed with the Environmental Protection Agency in October 1991.

OTHER INFORMATION: Funds were appropriated to initiate preconstruction engineering and design in FY 1992 and to initiate construction in FY 1994.

Section 211 of the Water Resources Development Act of 1996 authorized development of flood control projects by non-Federal interests. Section 211(f)(5) specifically names the Tropicana and Flamingo Washes, Nevada, Project to demonstrate the potential advantages and effectiveness of non-Federal implementation, and further states that, subject to amounts being made available in advance in appropriations, the Secretary may reimburse without interest, to the non-Federal interest an amount equal to the estimated Federal share of the cost of such work, if such work is later recommended by the Chief of Engineers, and approved by the Secretary. As of December 2000, the non-Federal sponsors constructed approximately nine miles of project flood control channel concomitant with the Las Vegas Beltway System. The estimated Federal share is approximately $25 million. The Section 211 amendment to the Project Cooperation Agreement was signed 17 September 1999. Partial reimbursement of $1.6 million was made in Fiscal Year 2001 and $8 million in Fiscal Year 2002.

The Tropicana and Flamingo Washes Recreation Formulation Report is being coordinated with the potential sponsor to address the formulation and evaluation of recreation facilities. The final report is scheduled for submission to our Washington level for review and approval in October 2003. This report will be used as the basis to support a Project Cooperation Agreement for the recreation purpose.





LEGEND

- Work Completed as of 30 September 2002
- Work Proposed With Funds Available For FY 2003
- Work Proposed With Funds Requested For FY 2004
- Work Required to Complete the Project After FY 2004
- Existing Washes, Streams, Creeks
- Typical Lateral Collector Channels
- Primary Channels
- Debris Basins
- Detention Basins

SCALE IN MILES

1 1/2 0 1 2

DEBRIS BASINS

- (a) F-1 (Complete FY04)
- (b) F-2 (Complete FY04)
- (c) F-4 (Complete FY05)

DETENTION BASINS

- (1) RED ROCK (Completed FY97)
- (2) FLAMINGO (Complete FY05)
- (3) TROPICANA (Completed FY98)
- (4) BLUE DIAMOND (Completed FY01)
- (5) R-4 (Complete FY03)

CHANNELS

- UPPER FLAMINGO (Complete FY04)
- F-1/F-2 (Complete FY04)
- LOWER FLAMINGO DIV (Complete FY02)
- R-4 (Complete FY03)

TROPICANA AND FLAMINGO WASHES
CLARK COUNTY, NEVADA

LOS ANGELES DISTRICT
SOUTH PACIFIC DIVISION

1 JANUARY 2003

APPROPRIATION TITLE: Construction, General - Reservoirs

PROJECT: Acequias Irrigation System, New Mexico (Continuing)

LOCATION: There are about one thousand recognized Acequias throughout the state of New Mexico. Most are located in north-central New Mexico in the counties of Mora, Rio Arriba, Santa Fe, San Miguel and Taos.

DESCRIPTION: Protect and restore river diversions and associated canals of community Acequia systems in New Mexico.

AUTHORIZATION: Water Resources Development Acts of 1986 and 1996.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable. 1/

TOTAL BENEFIT - COST RATIO: Not applicable. 1/

INITIAL BENEFIT - COST RATIO: Not applicable. 1/

BASIS OF BENEFIT - COST RATIO: Not applicable. 1/

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST
Estimated Federal Cost		$66,000,000	
Estimated Non-Federal Cost		22,000,000	
Cash Contribution	$22,000,000		
Total Estimated Project Cost		$88,000,000	
Allocations to 30 September 2002		$18,359,000	
Conference Allowance for FY 2003		TBD	
Allocation for FY 2003		TBD	
Allocations through FY 2003		TBD	

STATUS (1 Jan 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Diversion Structures		
Canals and Ditches	24	TBD

1/ Project was authorized without regard to economic analysis in accordance with Section 1113 of the Water Resources Development Act of 1986.

SUMMARIZED FINANCIAL DATA (continued)

		ACCUM. PCT. OF EST. FED. COST
Allocation Requested for FY 2004	$ 1,800,000	
Programmed Balance to Complete after FY 2004	TBD	
Unprogrammed Balance to Complete after FY 2004	0	

JUSTIFICATION: The acequia community ditch systems provide irrigation water to about 160,000 acres on an estimated 12,000 farms. About seventy percent of the farms average less than twenty acres in size and are used for subsistence farming. Acequias have been in existence since the early Spanish Colonization period of the 17th and 18th centuries and represent one of the oldest forms of cooperative institutions in the United States. They are an integral part of the culture and heritage of New Mexico. Justification for the project is based upon the historic and social significance the Acequias have for the local residents and the major role they play in the overall local economy. Flood damages to the acequia diversion dams and main delivery systems and subsequent interruption of water flow to the systems can have a devastating effect on the irrigators. At the most critical times for irrigation, high flood flows from spring snowmelt at the beginning of the irrigation season and from intense summer thunderstorms during the peak of irrigation cause structural damage or complete loss of ditch structures needed for delivering water to crops.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Continue Rehabilitation of Acequias	$1,400,000
Planning, Engineering and Design	200,000
Construction Management	200,000
Total	$1,800,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Acts of 1986 and 1996, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Pay 25 percent of the costs of Acequias restoration following the completion of reconnaissance level activities.	$22,000,000 2/	$ 0 3/
Total Non-Federal Cost	$22,000,000 2/	$ 0 3/

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

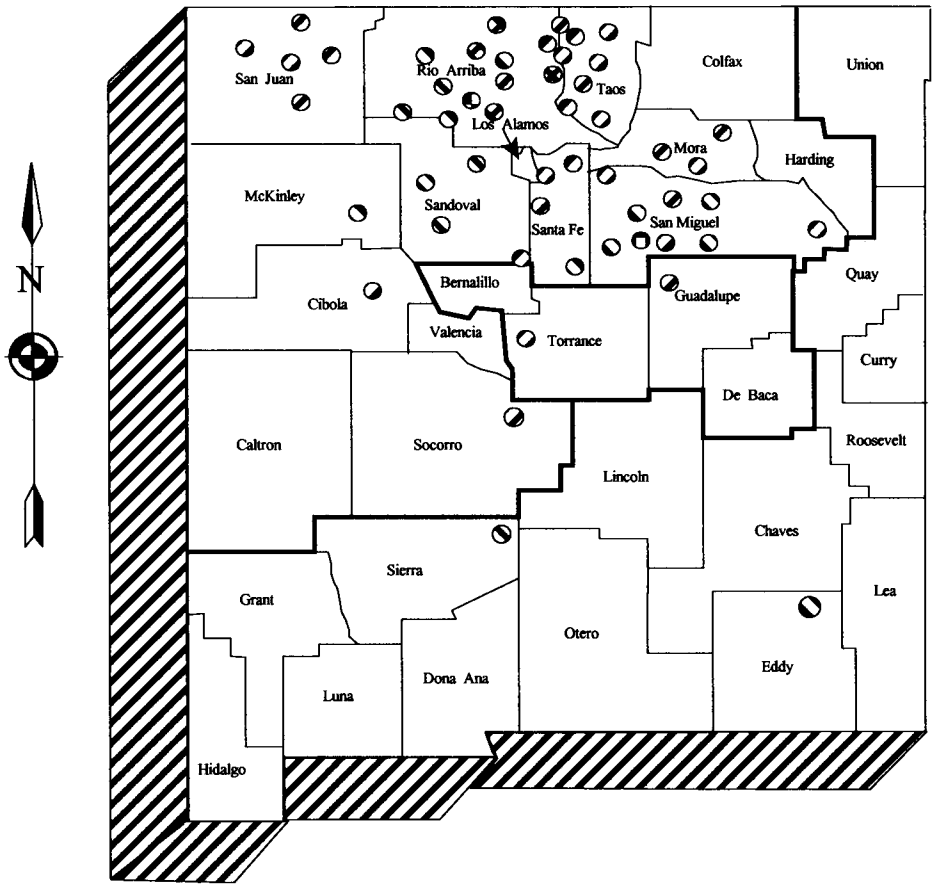
2/ Section 334 of the Water Resources Development Act of 1996 amended Section 1113 of the Water Resources Development Act of 1986 to make the Federal share of reconnaissance studies carried out by the Secretary 100 percent.
3/ Operation, maintenance, repair, rehabilitation and replacement costs historically are the responsibility of each acequia organization.

STATUS OF LOCAL COOPERATION: The local sponsor, the State of New Mexico, has enacted legislation whereby the State provides 17-1/2% of the project costs and low interest loans to the local Acequias for the remaining 7-1/2% of the non-Federal share. The State of New Mexico has appropriated, on an annual basis, the funds necessary to meet the requirements of local sponsorship. Local Cooperation Agreements have been signed for funds appropriated in Fiscal Year 1988, Fiscal Year 1989, and Fiscal Year 1990. The general Local Cooperation Agreement to cover all the Acequias within the State for remaining work after Fiscal Year 1990 was executed in June 1992. An amended Project Cooperation Agreement, incorporating the cost sharing contained in Section 334 of the Water Resources Development Act of 1996, was executed in March 1999.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $66,000,000 (1 October 2002) is the same as the latest estimate ($66,000,000) presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: An Environmental Assessment will be prepared for each Acequia Restoration Project prior to initiating construction.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1987. Funds to initiate construction were appropriated in Fiscal Year 1988. The state of New Mexico is the local sponsor for all the Acequias projects within the State.



STATE OF NEW MEXICO

STATUS OF WORK

- Work completed as of 30 Sept 2002
- Work proposed with funds available for FY 2003
- Work proposed with funds requested for FY 2004
- Work required to completed the project after 30 Sept. 2004

SCALE IN MILES
0 40 80 120 160

ACEQUIAS IRRIGATION SYSTEM NEW MEXICO

U.S. Army Corps of Engineers
Albuquerque District, South Pacific Division
Albuquerque, New Mexico
1 January 2003

3 February 2003

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: Alamogordo, New Mexico (Continuing)

LOCATION: The project is located in Otero County, in and near Alamogordo, New Mexico. The city of Alamogordo is situated at the foot of the Sacramento Mountains near the eastern edge of the Tularosa (Closed) Basin.

DESCRIPTION: The authorized project consists of three concrete and rip-rap lined diversion channels which will intercept flood flows from canyons and arroyos in the Sacramento Mountains east of the City.

AUTHORIZATION: Flood Control Act of 1962.

REMAINING BENEFIT - REMAINING COST RATIO: 3.5 to 1 at 8 7/8 percent.

TOTAL BENEFIT - COST RATIO: 1.8 to 1 at 8 7/8 percent.

INITIAL BENEFIT - COST RATIO: 4.6 to 1 at 8 7/8 percent (FY 1988).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Reevaluation Report, approved in March 1999, using October 1998 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST
Estimated Federal Cost		$41,400,000	
Estimated Non-Federal Cost		13,800,000	
Cash Contribution	$11,600,000		
Other Costs	2,200,000		
Total Estimated Project Cost		$55,200,000	
Allocations to 30 September 2002		$10,620,000	
Conference Allowance for FY 2003		TBD	
Allocation for FY 2003		TBD	
Allocations through FY 2003		TBD	

STATUS (1 Jan 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	14	TBD

PHYSICAL DATA

Concrete Lined Channel:	47,500 ft.
Sediment Basins:	5
Detention Basins:	1
Stilling Basin:	1
Relocation:	3 (RR Bridges)

SUMMARIZED FINANCIAL DATA (continued)

		ACCUM. PCT. OF EST. FED. COST
Allocation Requested for FY 2004	$ 3,500,000	
Programmed Balance to Complete after FY 2004	TBD	
Unprogrammed Balance to Complete after FY 2004	0	

JUSTIFICATION: There are no well-defined watercourses in the Tularosa (Closed) Basin. Many canyons and arroyos which descend to the valley floor from the mountains bordering the basin carry runoff. Several arroyos head on the west slope of the Sacramento Mountains and flow westward through the city of Alamogordo, causing extensive damage to residential and business properties, schools and churches, utilities, streets, highways, roads, and other public properties. The major problem arroyos from north to south are Dry, Beeman, Marble, and Alamo Canyons. Also, several minor unnamed arroyos in the vicinity contribute to the problem. Estimated total property valuation of the area in the 100-year flood plain is $484,000,000 (1 October 2002). Estimated damages from an occurrence of the one percent chance flood under present conditions are $86,000,000. Records indicate that from 1935 through 1959, eleven floods exceeded the capacity of railroad drainage structures in the area, overtopping the tracks by as much as two feet. Floods on 17 and 26 August 1959 caused estimated damages of $240,000 and $57,000, respectively. These damages, based on 1 October 2002 price levels, would be $2,600,000 and $660,000, respectively. Other minor flooding, occurring as recently as 1979 and 1984, has caused City officials to be concerned about the flood threat. The average annual benefits are $8,326,800, all flood control, based on October 1998 price levels.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Continue Construction of South Channel	$3,000,000
Planning, Engineering and Design	250,000
Construction Management	250,000
Total	$3,500,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair Rehabilitation and Replacement Cost
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$ 1,600,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	600,000	
Pay 21 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	$11,600,000	$130,000
Total Non-Federal Cost	$13,800,000	$130,000

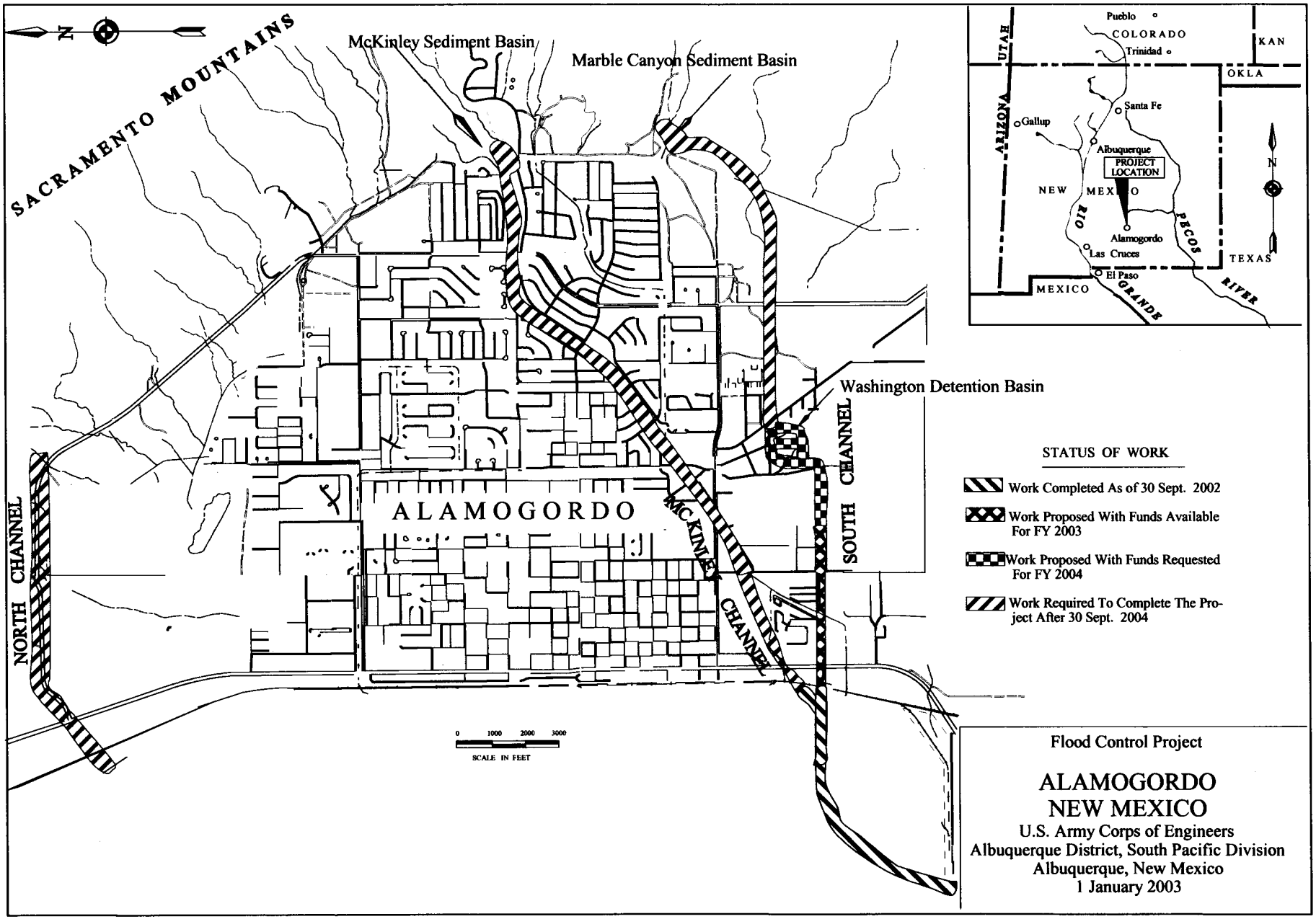
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The Project Cooperation Agreement with the city of Alamogordo, New Mexico, was executed in July 1999. The current non-Federal cost estimate of $13,800,000, which includes a cash contribution of $11,600,000 is the same as the non-Federal cost estimate noted in the Project Cooperation Agreement. Our analysis of the non-Federal sponsor’s financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment. Their first payment for construction was received on 15 December 2000.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $41,400,000 (1 October 2002) is the same as the latest estimate ($41,400,000) presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Assessment and Finding of No Significant Impact (FONSI) for the current plan of improvement were signed in October 1998.

OTHER INFORMATION: The city of Alamogordo has been working with the U.S. Army Corps of Engineers and the New Mexico Congressional Delegation for over thirty years seeking a solution to the flood threat from the Sacramento Mountains located east of the City. Funds to initiate construction of the diversion channel were appropriated in Fiscal Year 1988. Work was discontinued in September 1988, without a contract being awarded, because the City could not give assurances of local cooperation due to the failure of a bond issue. To satisfy the concerns expressed by the City Commissioners and area residents, alternative solutions were investigated and were outlined in an Interim Letter Report dated August 1992. The letter report recommended reevaluation of the project through the preparation of a General Reevaluation Report. The General Reevaluation Report addresses alternatives to the authorized Standard Project Flood protection plan. The new alternatives will be constructed in phases to accommodate the sponsor's financial plan. To that end, the City provided a letter of intent emphasizing their commitment and support for further analysis. The General Reevaluation Report was completed in April 1999. The General Reevaluation Report’s recommended plan consists of construction of two new diversion channels and upgrading an existing earthen channel which will intercept flows from the Sacramento Mountains. Appurtenant project features include 5 sediment basins, 1 detention basin, and a stilling basin.


N
SACRAMENTO MOUNTAINS
McKinley Sediment Basin
Marble Canyon Sediment Basin
Washington Detention Basin
ALAMOGORDO
NORTH CHANNEL
SOUTH CHANNEL
MCKINLEY CHANNEL
0 1000 2000 3000
SCALE IN FEET
Pueblo
COLORADO
Trinidad
UTAH
KAN
OKLA
ARIZONA
Santa Fe
Gallup
Albuquerque
PROJECT LOCATION
NEW MEXICO
RIO PECOS
Alamogordo
Las Cruces
TEXAS
El Paso
MEXICO
RIO GRANDE
RIVER
STATUS OF WORK
Work Completed As of 30 Sept. 2002
Work Proposed With Funds Available For FY 2003
Work Proposed With Funds Requested For FY 2004
Work Required To Complete The Project After 30 Sept. 2004
Flood Control Project
ALAMOGORDO
NEW MEXICO
U.S. Army Corps of Engineers
Albuquerque District, South Pacific Division
Albuquerque, New Mexico
1 January 2003

APPROPRIATION TITLE: Construction, General - Local Protection (Flood Control)

PROJECT: El Paso, Texas (Continuing)

LOCATION: The project is located in El Paso, El Paso County, Texas

DESCRIPTION: The project consists of a single-purpose flood control system of detention dams, diversion dikes, conduits, and channels to collect, regulate and discharge runoff into the Rio Grande.

AUTHORIZATION: Flood Control Act of 1965.

REMAINING BENEFIT - REMAINING COST RATIO: 8.5 to 1 at 3 1/4 percent.

TOTAL BENEFIT - COST RATIO: 2.0 to 1 at 3 1/4 percent.

INITIAL BENEFIT - COST RATIO: 1.5 to 1 at 3 1/4 percent (FY 1970).

BASIS OF BENEFIT - COST RATIO: Benefits are from the General Design Memorandum approved in September 1987 at October 1987 price levels.

SUMMARIZED FINANCIAL DATA			ACCUM. PCT. OF EST. FED. COST	STATUS (1 Jan 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$123,700,000		Entire Project	95	TBD
Estimated Non-Federal Cost		39,700,000				
Cash Contribution	$ 4,520,000					
Other Costs	35,180,000					
Total Estimated Project Cost		$163,400,000				
Allocations to 30 September 2002		$114,529,000				
Conference Allowance for FY 2003		TBD				
Allocation for FY 2003		TBD				
Allocations through FY 2003		TBD				

PHYSICAL DATA

Central Area:
Dams - 6
Channels - 34,900 ft.
Conduits - 25,900 ft.

Southeast Area:
Dams - 4
Channels - 26,000 ft.

Northwest Area:
Dams - 5
Channels - 21,000 ft.
Conduits - 13,700 ft.

Detention Basins:
Chevron
Phelps Dodge
Lomaland
Americas

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM. PCT. OF EST. FED. COST
Allocation Requested for FY 2004	$ 2,800,000	
Programmed Balance to Complete after 2004	TBD	
Unprogrammed Balance to Complete after FY 2004	0	

JUSTIFICATION: The project provides flood protection for urban areas subject to damaging floods from arroyos on the slopes of the adjacent mountains. Major damaging floods occurred in 1950, 1955, 1958, 1962, 1963, 1966, 1967, 1968, and 1974. The flood of record occurred in 1958 and caused estimated damages of $984,000. Recurrence of this flood based on October 2002 prices would cause damages estimated at $8,500,000. Standard Project Flood is the design flood for the Central and Northwest Areas. The National Economic Development Plan has been selected for the Southeast Area. Estimated urban acres protected by the authorized project are 8,830. Value of land and improvements in the Standard Project Flood Plain is about $3.3 billion (October 2002 prices). Average annual benefits are $10,873,000, all flood control, based on October 1987 price levels.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Continue Construction of Lomaland System	$2,000,000
Planning, Engineering and Design	400,000
Construction Management	400,000
Total	$2,800,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payments During Construction and Reimbursement	Annual Operation, Maintenance, Repair, Rehabilitation and Replacement Costs
Central and Northwest Areas:		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$10,740,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,560,000	
Bear all costs of operation, maintenance, repair, rehabilitation, and replacement of flood control facilities.	0	$530,000
Total Non-Federal Costs (Central and Northwest Areas)	$13,300,000	$530,000
Southeast Area:		
Provide lands, easements, rights of way, and borrow and excavated or dredged material disposal areas.	$19,550,000	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	2,330,000	
Pay 5 percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to 25 percent, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.	4,520,000	$ 96,000
Total Non-Federal Costs (Southeast Area)	$26,400,000	$ 96,000
Total Non-Federal Costs (Southeast, Central and Northwest Areas)	$39,700,000	$626,000

STATUS OF LOCAL COOPERATION: The project sponsor, the city of El Paso, executed a Section 221 agreement on 31 August 1972 which was approved by the Assistant Secretary of the Army for Civil Works on 7 September 1972. The city of El Paso is acquiring rights-of-way for each item of construction as required.

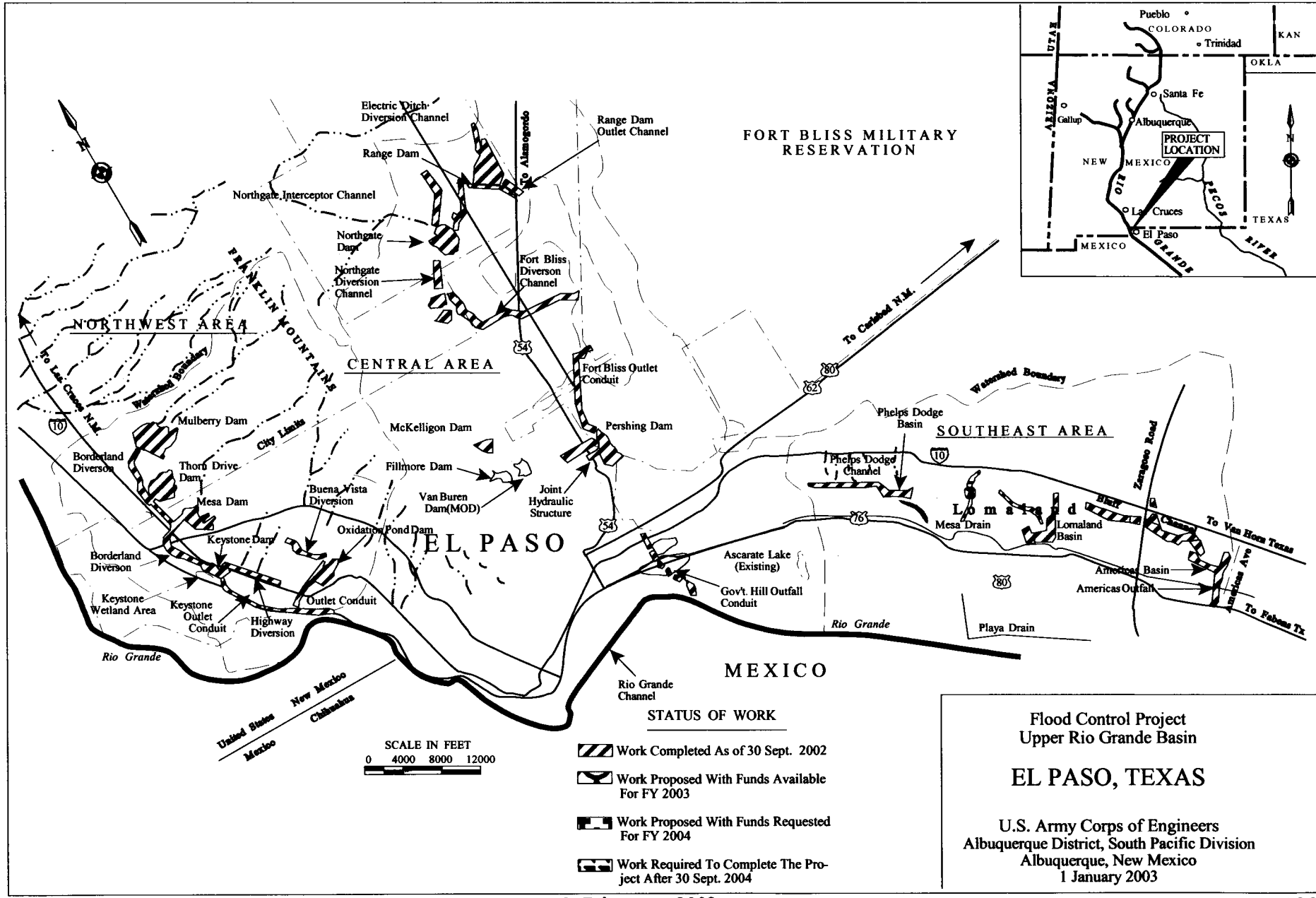
The Local Cooperation Agreement for construction in the Southeast Area was executed with the city of El Paso, Texas, in September 1988. The current non-Federal cost estimate of $26,400,000, for the Southeast Area, which includes a cash contribution of $4,520,000, is an increase of $4,700,000 from the non-Federal cost estimate of $21,700,000 noted in the Local Cooperation Agreement, which included a cash contribution of $3,700,000. In the Local Cooperation Agreement, the non-Federal Sponsor indicated that it is financially capable and willing to contribute the non-Federal share. Our analysis of the non-Federal Sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $123,700,000 is an increase of $5,500,000 from the latest estimate ($118,200,000) presented to Congress (FY 2003). This change includes the following item.

Item	Amount
Design Changes	5,500,000
Total	$ 5,500,000

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The final Environmental Impact Statement for the Central Area was filed with the Council on Environmental Quality in November 1970. The final Environmental Impact Statement for the Northwest Area was submitted to the Council on Environmental Quality in November 1977. The final Environmental Impact Statement for the Southeast Area was filed with the Environmental Protection Agency in November 1987.

OTHER INFORMATION: Funds to initiate engineering and design were appropriated in Fiscal Year 1967, and for construction in Fiscal Year 1970. Funds to initiate construction of the Southeast Area were appropriated in Fiscal Year 1988. The Southeast Area is scheduled to be physically completed in September 2004. However, the Chevron Basin feature of the Southeast Area project will not be constructed because of environmental concerns. A General Reevaluation Report is being prepared to determine alternatives for the flood control that Chevron Basin would have provided. The General Reevaluation Report completion date is being determined.


Pueblo
COLORADO
Trinidad
KAN
OKLA
UTAH
ARIZONA
Santa Fe
Gallup
Albuquerque
PROJECT LOCATION
NEW MEXICO
RIO GRANDE
PECOS RIVER
La Cruces
El Paso
TEXAS
MEXICO
FORT BLISS MILITARY RESERVATION
Electric Ditch Diversion Channel
Range Dam
Range Dam Outlet Channel
To Alamogordo
Northgate Interceptor Channel
Northgate Dam
Northgate Diversion Channel
Fort Bliss Diverson Channel
NORTHWEST AREA
FRANKLIN MOUNTAINS
CENTRAL AREA
To Carlsbad N.M.
To Las Cruces N.M.
Watershed Boundary
City Limits
Fort Bliss Outlet Conduit
Mulberry Dam
McKelligon Dam
Pershing Dam
Borderland Diverson
Thorn Drive Dam
Fillmore Dam
Buena Vista Diversion
Van Buren Dam(MOD)
Joint Hydraulic Structure
Mesa Dam
Oxidation Pond Dam
EL PASO
Keystone Dam
Borderland Diverson
Keystone Wetland Area
Keystone Outlet Conduit
Highway Diversion
Outlet Conduit
Rio Grande
United States
New Mexico
Mexico
Chihuahua
Rio Grande Channel
MEXICO
Ascarate Lake (Existing)
Gov't. Hill Outfall Conduit
Phelps Dodge Basin
SOUTHEAST AREA
Phelps Dodge Channel
Lomaland
Mesa Drain
Lomaland Basin
Zaragoza Road
Black Arroyo
To Van Horn Texas
Americas Basin
Americas Outfall
Indiana Ave
To Fabens Tx
Rio Grande
Playa Drain
SCALE IN FEET
0 4000 8000 12000
STATUS OF WORK
Work Completed As of 30 Sept. 2002
Work Proposed With Funds Available For FY 2003
Work Proposed With Funds Requested For FY 2004
Work Required To Complete The Project After 30 Sept. 2004
Flood Control Project
Upper Rio Grande Basin
EL PASO, TEXAS
U.S. Army Corps of Engineers
Albuquerque District, South Pacific Division
Albuquerque, New Mexico
1 January 2003

APPROPRIATION TITLE: Construction, General – Environmental Restoration

PROJECT: Rio Salado, Phoenix and Tempe Reaches, Arizona

LOCATION: The project area consists of two reaches, Phoenix Reach and Tempe Reach. Phoenix Reach is located approximately 5 miles along the Salt River in the city of Phoenix, Maricopa County, Arizona. Tempe Reach is located along 1.3 miles on Indian Bend Wash, from McKellips Road bridge downstream to the confluence with the Salt River, 0.5 mile of the Salt River, from McClintock Road to the upstream dam for the Tempe Town Lake, and 0.5 mile downstream to Priest Drive in the city of Tempe, Maricopa County, Arizona.

DESCRIPTION: Phoenix Reach is subdivided into three phases and consists of the sponsor's construction of a low-flow channel in the river bottom of the Rio Salado. Phase I is from 19th Avenue to Central Avenue, Phase II is from Central Avenue to 16th Street, and Phase III is from 16th Street to Interstate 10. The project consists of the establishment of riparian and sonoran desert habitat restoration, acceptable surface and groundwater quality improvements, and incidental recreational opportunities. Recreation development consists of parking lots, restroom facilities, and approximately ten miles of trails.

Tempe Reach consists of riparian, sonoran desert and aquatic habitat restoration, water supply and distribution system to support the habitat, and limited recreational features. The project will restore valuable and scarce native plan communities including mesquite, cottonwood-willow and aquatic habitat such as wetland marsh. Incidental recreation consists of ramadas, an overlook station, a parking lot, restroom facilities, and trails.

AUTHORIZATION: Water Resources Development Act of 1999.

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT-COST RATIO: Not applicable.

BASIS OF BENEFIT-COST RATIO: Benefits are evaluated in items of habitat units, not dollars for environmental restoration projects. Benefits were approved in the Report of the Chief of Engineers dated August 20, 1998.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST	STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION
Phoenix Reach:						
Estimated Federal Cost		$ 59,700,000		Phoenix Reach	50	TBD
Estimated Non-Federal Cost		33,500,000		Tempe Reach	14	TBD
Cash Contributions	29,200,000					
Other Costs	4,300,000			Entire Project	40	TBD 1/
Total Phoenix Reach		$ 93,200,000				
Tempe Reach:						
Estimated Federal Cost		$ 4,900,000				
Estimated Non-Federal Cost		2,800,000				
Cash Contributions	2,800,000					
Other Costs	0					
Total Tempe Reach		$ 7,700,000				
PROJECT SUMMARY:						
Estimated Federal Cost		$ 64,600,000				
Estimated Non-Federal Cost		36,300,000				
Cash Contributions	32,000,000					
Other Costs	4,300,000					
Total Estimated Project Cost		$100,900,000				
Allocations to 30 September 2002		$ 16,409,000				
Conference Allowance for FY 2003		TBD				
Allocation for FY 2003		TBD				
Allocations through FY 2003		TBD				
Allocation Requested for FY 2004		11,600,000				
Programmed Balance to Complete after FY 2004		TBD				
Unprogrammed Balance to Complete after FY 2004		TBD				

1/ Includes credit work completed by sponsors.

PHYSICAL DATA

Phoenix Reach

Environmental Habitat

Low-Flow Channel	
Wetland marsh	9 acres
Aquatic strand	51 acres
Open edges	70 acres
Bench/Bank	
Mesquite	110 acres
Cottonwood/willow habitat	79 acres
Wetland marsh	49 acres
Open edges	57 acres
Other (Infrastructure)	15 acres
Overbank	
Mesquite	20 acres
Cottonwood/willow habitat	20 acres
Open edges	10 acres
Other (Infrastructure)	10 acres
Access Areas	
Open edges	50 acres

Recreation Development

Ramadas	5
Parking lots	3
Restroom facilities	2
Gardens	4
Hiking trails	10 miles

Low Flow Channel

Length:	5 miles
Base Width:	200 feet
Depth:	6-10 feet
Drop Structures	4
Water Wells:	approx 300 feet deep
Dike Groins	approx 42

Distribution System

Piping	5 miles
Ponds	approx 12

Tempe Reach

Environmental Habitat

Indian Bend Wash	
Open edges	10 acres
Mesquite	20 acres
Aquatic Strand	50 acres
Salt River	
Mesquite	10 acres
Cottonwood/willow habitat	20 acres
Wetland marsh	16 acres
Open edges	34 acres
Recreational Development	
Ramadas	3
Parking lot	1
Overlook structure	1
Restroom facilities	1
Hiking trails	3 miles

Indian Bend Wash

Low Flow Channel	
Length:	1.3 miles
Base Width:	10-20 feet
Depth:	3-8 feet
Water Well:	approx 300 feet deep
Distribution system	
Upstream	1.3 miles
Downstream	1.3 miles

JUSTIFICATION: Rio Salado has experienced degradation of wetlands and riparian vegetation within the existing flood control channel which is located in an arid, urban environment. The population growth in Maricopa County has increased the demands for water supply, water quality, environmental quality, water-related recreation and flood protection. Riparian habitat is rapidly disappearing throughout the desert regions of the American Southwest. Approximately 90 percent of all wildlife species in Arizona depend on riparian habitat for their survival. Federal dams constructed in the early 1900's in the upper Salt and Verde Rivers have limited flows in the lower Salt River through the Phoenix Metropolitan area including Tempe. All historical riparian habitat has been severely impacted. Today, only sporadic vegetation exists in the Salt River. Open bodies of water that once supported waterfowl and migratory species have disappeared. Urbanization and construction of the Indian Bend Wash flood control project have eliminated high value riparian mesquite bosque communities. Opportunities exist to restore portions of the Indian Bend Wash by reestablishing riparian habitat. Riparian habitat is important as a source of food and cover for wildlife, as a shade source for smaller streams to help keep water temperatures low, as a natural bank stabilizer by preventing excessive erosion, and as natural filtering system to improve water quality. The recommended plan provides an increase of approximately 262 habitat units in the Phoenix area and 76 habitat units in the Tempe area.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Phoenix Reach:	
Initiate Phase I and II Monitoring	$ 751,000
Continue Phase 1B and II Environmental and Recreation	6,252,000
Complete construction of Phase 1A Environmental and Recreation	1,861,000
Planning, Engineering and Design	788,000
Construction Management	620,000
Tempe Reach:	
Initiate Phase 2 construction	330,000
Complete Indian Bend Wash Environmental and Recreation construction	567,000
Planning, Engineering and Design	189,000
Construction Management	242,000
Total	$11,600,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsors must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction And Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation & Replacement Costs
Phoenix Reach:		
Provide lands, easements, and rights-of-way.	$ 4,300,000	$
Pay 30 percent of the costs allocated to environmental restoration to bring the total non-Federal share of environmental restoration costs to 35 percent as reduced for credit allowed based on prior work, currently estimated at $23,977,000, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of environmental restoration facilities.	26,200,000	1,898,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	3,000,000	1,113,000
Total Phoenix Reach	$ 33,500,000	$3,011,000
Tempe Reach:		
Pay 35 percent of the costs allocated to environmental restoration to bring the total non-Federal share of environmental restoration costs to 35 percent as reduced for credit allowed based on prior work, currently estimated at $1,500,000, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of environmental restoration facilities.	$ 2,380,000	$ 244,000
Pay one-half of the separable costs allocated to recreation and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	420,000	156,000
Total Tempe Reach	$ 2,800,000	$400,000
Total Non-Federal Costs	$ 36,300,000	$3,411,000

NON-FEDERAL COST (Continued)

The Non-Federal sponsors have also agreed to make all required payments concurrently with project construction.

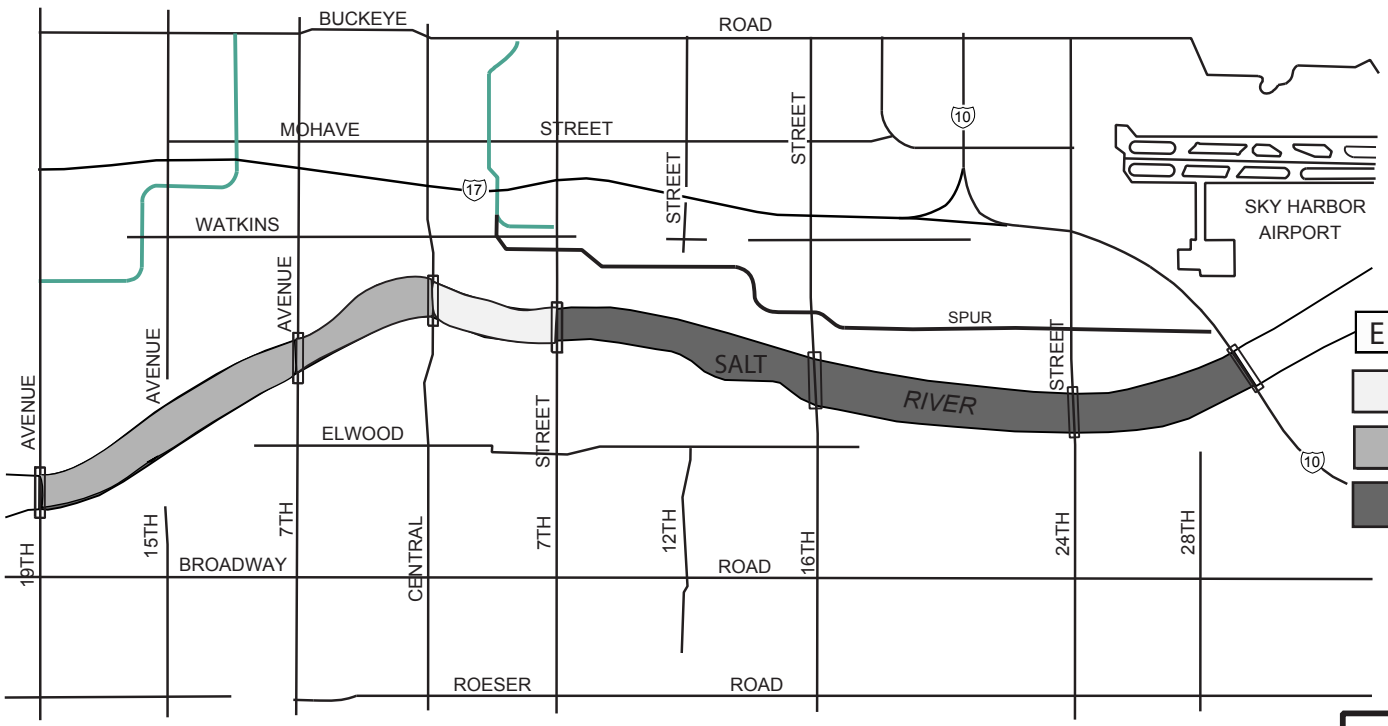
STATUS OF LOCAL COOPERATION: The Cities of Phoenix and Tempe are the local sponsors. The City of Phoenix and City of Tempe reaffirmed their support of the project by letters dated February 24, 1998 and March 4, 1998 respectively. The Project Cooperation Agreements (PCA) for the Phoenix Reach was executed in June 2001 and the PCA for the Tempe Reach is scheduled for execution in February 2003.

The current non-Federal cost estimate of $36,300,000, which includes a cash contribution of $32,000,000 may be offset by a partial credit of $23,977,000 for the Phoenix Reach, and $1,500,000 for the Tempe Reach allowed for locally-constructed work (low flow channel with drop structures, plant materials, and lake bypass system) approved by the Chief of Engineers Report dated August 20, 1998. In 1998, the non-Federal sponsors indicated that they are financially capable and willing to contribute the non-Federal share. Our analysis of the non-Federal sponsors' financial capability to participate in the project affirms that the sponsors have a reasonable and implementable plan for meeting their financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $64,600,000 is the same as last presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Environmental Impact Statement was included in the Feasibility Report and Environmental Impact Statement for Rio Salado, Salt River, Arizona, dated April 1998. The Environmental Impact Statement was filed with Environmental Protection Agency in May 1998. The Record of Decision for the Environmental Impact Statement was signed in March 2000. The project is in compliance with the Arizona Environmental Quality Act.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were appropriated in Fiscal Year 1998. Funds to initiate construction were appropriated in Fiscal Year 2001.



VICINITY MAP

SCALE 30 0 60 120 180 MILES

AREA COVERED BY MAP

LEGEND

E & D — Work Completed as of 30 September 2002

Work Proposed With Funds Available For FY 2003

Work Proposed With Funds Requested for FY 2004

Work Required to Complete the Project After FY 2004

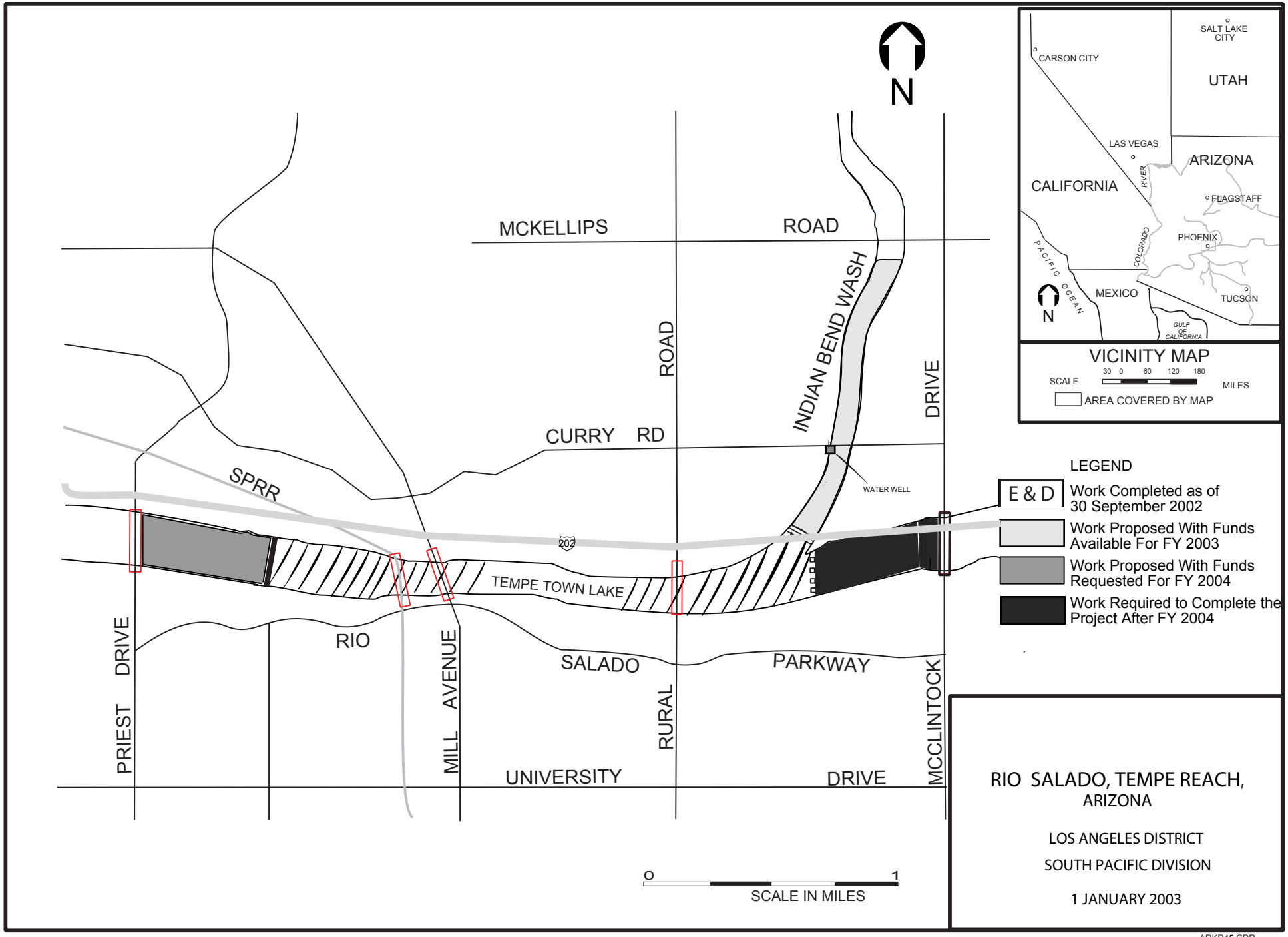
0 1

SCALE IN MILES

RIO SALADO, PHOENIX REACH, ARIZONA

LOS ANGELES DISTRICT
SOUTH PACIFIC DIVISION

1 JANUARY 2003



RIO SALADO, TEMPE REACH, ARIZONA

LOS ANGELES DISTRICT

SOUTH PACIFIC DIVISION

1 JANUARY 2003

ARKR45.CDR

APPROPRIATION TITLE: Construction, General – Environmental Restoration

PROJECT: Hamilton Airfield Wetlands Restoration, California (Continuing)

LOCATION: Hamilton Airfield Wetland Restoration Project is located 4 miles east of the city of Novato, on San Pablo Bay, Marin County, California.

DESCRIPTION: The project includes a 988-acre parcel consisting of a former military runway and adjacent California State Lands Commission areas. The site, currently protected by levees, has subsided below the elevation of surrounding properties including the tidal wetlands immediately adjacent to San Pablo Bay. This condition has resulted in the loss of valuable habitat for various waterfowl, fish and other wetland dependent species of plants and animals. The project allows for the beneficial reuse of 10.6 million cubic yards of dredged material, including approximately 2.6 million cubic yards from the Oakland Harbor, CA (50-ft) deepening project. The project promotes the long term management strategy for placement of dredged material in the San Francisco Bay region.

AUTHORIZATION: Water Resources Development Act of 1999

REMAINING BENEFIT - REMAINING COST RATIO: Not applicable.

TOTAL BENEFIT - COST RATIO: Not applicable.

INITIAL BENEFIT – COST RATIO: Not applicable

BASIS OF BENEFIT - COST RATIO: Project justification is based on nonmonetary benefits for wetland restoration.

SUMMARIZED FINANCIAL DATA			STATUS (1 Jan 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Estimated Federal Cost		$ 47,400,000	Entire Project	2	TBD
Estimated Non-Federal Cost		$ 15,800,000			
Cash Contribution	$ 12,900,000				
Other Costs	2,900,000				
Total Estimated Project Cost		$ 63,200,000			

PHYSICAL DATA

Placement of 10.6 million cubic yards of dredged material; Breach tidal levee; Construction of 9400 ft of perimeter levee; and Wetland Restoration of 988 acres

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED EST
Allocations to 30 September 2002	5,567,800	
Conference Allowance for FY 2003	TBD	
Allocation for FY 2003	TBD	
Allocation through FY 2003	TBD	
Allocation Requested for FY 2004	2,000,000	
Programmed Balance to Complete after FY 2004	$ TBD	
Unprogrammed Balance to Complete after FY 2004	0	

JUSTIFICATION: The Hamilton Airfield Wetland Restoration project area, currently protected by levees, has subsided below the elevation of surrounding properties, including the tidal wetlands immediately adjacent to San Pablo Bay. This condition has resulted in the loss of valuable habitat for various waterfowl, fish and other wetland dependent species of plants and animals. The principal purpose of the project is beneficial use of dredged material from San Francisco Bay dredging projects to accelerate development and restoration of tidal wetlands. The project is also consistent with the local reuse plan for the airfield that was closed in 1974.

FISCAL YEAR 2004: The requested amount of $2,000,000 will be applied as follows:

Continue Construction	$1,500,000
Planning, Engineering and Design	200,000
Construction Management	300,000
Total	$2,000,000

NON-FEDERAL COST: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, the non-Federal sponsor must comply with the requirements listed below:

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repairs, Rehabilitation, and Replacement Costs
Provide lands, easements, rights of way, and dredged material disposal areas.	$ 300,000	N/A
Modify or relocate utilities, roads, bridges (except railroads bridges), and other facilities, where necessary for the construction of the project.	2,600,000	N/A
Pay 20.4 percent of the construction costs allocated to fish and wildlife restoration/beneficial use of dredged material in cash to bring the non-Federal share of the project to 25 percent in accordance with Section 204 of the Water Resources Development Act of 1992.	12,900,000	$ 228,000
Total Non-Federal Costs	$ 15,800,000	$ 228,000

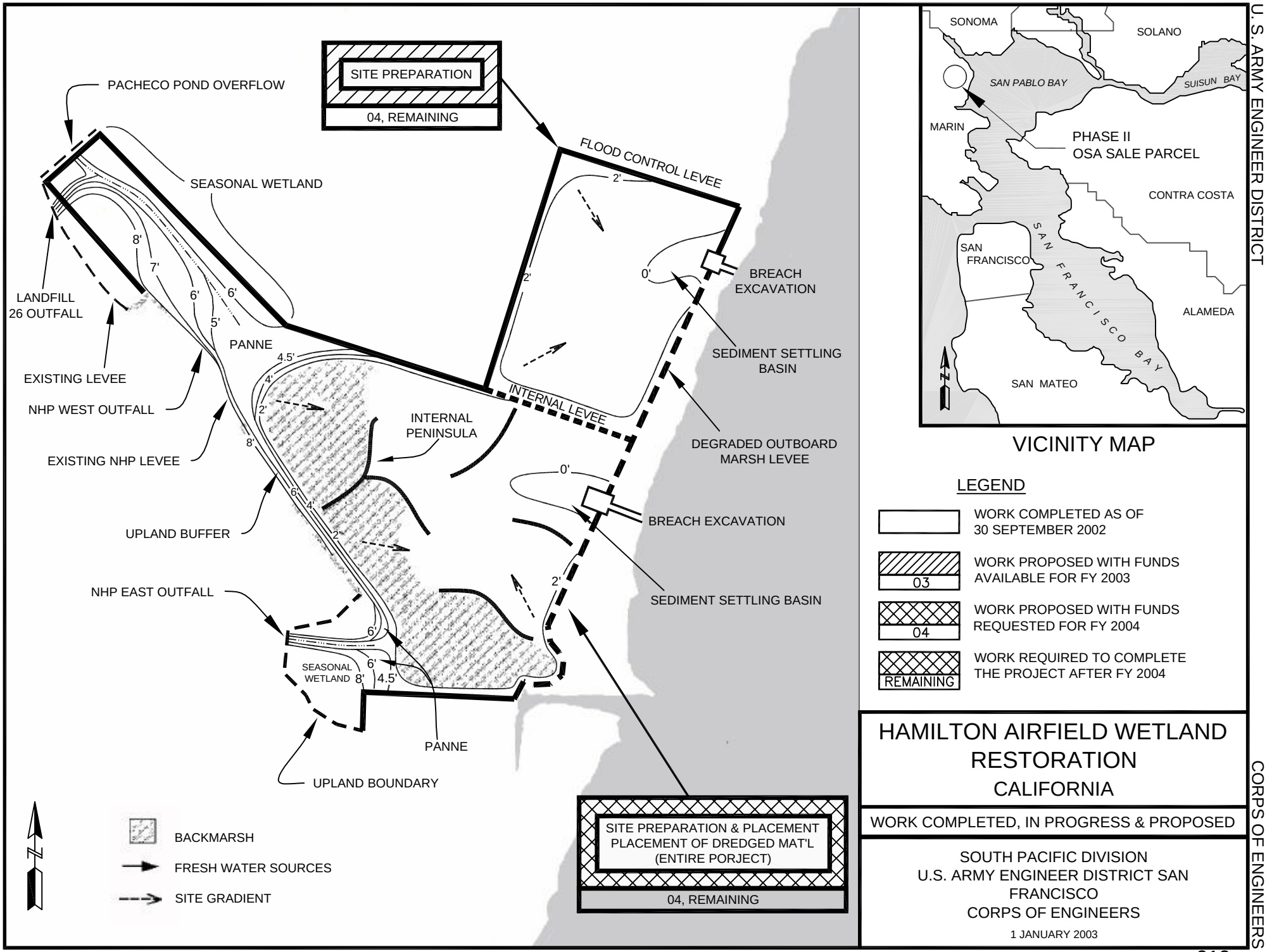
The non-Federal sponsor has also agreed to make all required payments concurrently with project construction.

STATUS OF LOCAL COOPERATION: The California Coastal Conservancy, the local sponsor, supports the project. The Project Design Agreement was executed in September 1999. The current non-Federal cost estimate of $15,800,000, which includes a cash contribution of $12,900,000, is the same as reflected in the Project Cooperation Agreement, which was approved in April 2002. The non-Federal sponsor has indicated it is financially capable and willing to contribute to the non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: The Current Federal cost estimate of $47,400,000 is the same amount as last presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: The Final Environmental Impact Statement was filed with EPA in February 1999.

OTHER INFORMATION: Funds to initiate preconstruction engineering and design were reprogrammed to the project with Congressional approval in Fiscal Year 1999. Funds to initiate construction were appropriated in Fiscal Year 2001. At the local sponsor's request, this project is being re-evaluated to examine the Federal interest in expanding the Hamilton project to include the adjacent 1,610-acre Bel Marin Keys Unit V parcel. The General Reevaluation Report (GRR) recommends the inclusion of the Bel Marin Keys and also reevaluates the previously authorized Hamilton Wetland Restoration Project. Total project first cost (October 2002 prices) reflected in the GRR, including the Bel Marin Keys increment, is estimated at $171,000,000. The GRR and Supplemental Environmental Impact Report/Environmental Impact Statement for Bel Marin Keys Unit V Expansion of the Hamilton Wetland Restoration Project was completed in December 2002 and is currently under review at the Washington D.C. level. Inclusion of the Bel Marin increment would require congressional authorization.



VICINITY MAP

LEGEND

- WORK COMPLETED AS OF 30 SEPTEMBER 2002
- 03 — WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
- 04 — WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
- REMAINING — WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

HAMILTON AIRFIELD WETLAND RESTORATION
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SOUTH PACIFIC DIVISION
U.S. ARMY ENGINEER DISTRICT SAN FRANCISCO
CORPS OF ENGINEERS

1 JANUARY 2003

U. S. ARMY ENGINEER DISTRICT

CORPS OF ENGINEERS

APPROPRIATION TITLE: Construction, General - Dam Safety Assurance

PROJECT: Success Dam and Reservoir, Tule River, California - Dam Safety Seismic Remediation (Dam Safety Assurance) (Continuing)

LOCATION: The project area is located in Tulare County within the 12,500 square-mile Tulare Lake Basin in the southeastern portion of the San Joaquin Valley about 60 miles north of the city of Bakersfield, California. The Tule River drains about 390 square miles into Success Lake and flows from the lake on to the valley through the city of Porterville, and continues another 25 miles through agricultural areas.

DESCRIPTION: A Dam Safety Assurance Program (DSAP) Evaluation Report recommends remedial treatment at Success Dam to prevent foundation liquefaction that could lead to a catastrophic failure of the dam.

AUTHORIZATION: Flood Control Act of 1944

REMAINING BENEFIT-REMAINING COST RATIO: Not Applicable

TOTAL BENEFIT-COST RATIO: Not Applicable

BASIS OF BENEFIT-COST RATIO: Not Applicable

SUMMARIZED FINANCIAL DATA		
Estimated Appropriation Requirements (COE)		$30,900,000
Future Non-Federal Reimbursement		-440,325
Estimated Federal Cost (Ultimate)		30,459,675
Estimated Non-Federal Cost		440,325
Cash Contribution	$0	
Other Costs	0	
Reimbursements	440,325	
Total Estimated Project Cost		$30,900,000

	STATUS (1 JAN 2003)	PERCENT COMPLETE	PHYSICAL COMPLETION SCHEDULE
Entire Project	Not Started		TBD

PHYSICAL DATA

Dam-earthfill
Gated outlet conduit
Uncontrolled spillway 200 feet wide
Crest length 22.5 feet
Crest width 16.0 feet

SUMMARIZED FINANCIAL DATA (Continued)

		ACCUM PCT OF EST FED COST
Allocations to 30 September 2002	$ 2,490,000	1/
Conference Allowance for FY 2003	TBD	
Allocation for FY 2003	TBD	
Allocations through FY 2003	TBD	
Allocation Requested for FY 2004	1,000,000	
Programmed Balance to Complete after FY 2004	TBD	

1/ Includes $344,000 for PED funded under the Operations and Maintenance appropriation.

JUSTIFICATION: Success Dam and Reservoir is located on the Tule River about 5 miles east and upstream of the town of Porterville, Tulare County, California. Construction of the main dam and appurtenances was begun during October 1958. The project was certified complete and accepted by the Government for operation on 15 May 1961. The total first cost of the project is approximately $14,247,000 (1961 dollars). The project lies within Seismic Zone 3 (major seismic hazard), and is operated and maintained under the jurisdiction of the US Army Corps of Engineers, Sacramento District. The main dam is a rolled earthfill structure with a maximum height of 142 feet and is 3,404 feet long.

A 1983 report, “Dynamic Analysis of Success Dam, Success Reservoir, Tule River, California” (US Army Corps of Engineers, Sacramento District, June 1983), concluded that Success Dam would perform adequately in the event of a Maximum Credible Earthquake as required by criteria in ER 1110-2-1806 (16 May 1983). During the review of the dynamic analysis report, it was noted that there was considerable uncertainty about the amount of actual deformation the dam would experience under seismic loading. However, the dam was deemed safe due to the available freeboard of 39 feet when the reservoir is at gross pool. In June 1992, a Technical Review Conference (TRC) reexamined the 1983 report and concluded that the 1983 study was representative of accepted engineering practices at the time of its completion. However, the TRC recognized that recent advances allowed better understanding of the alluvial soils present in the foundation of Success Dam and recommended further studies be performed to update the seismic evaluation.

These recent studies concluded that a Maximum Credible Earthquake would cause extensive loss of strength, slope instability, and deformation over a section of the Success Dam embankment. This damage may be sufficient to result in an uncontrollable loss of the reservoir pool through a breach in the embankment. Similar damage levels may also result from lesser earthquake events. Any breach of the dam should be expected to result in loss of life and damages estimated at $684 million.

JUSTIFICATION (Continued)

The Lower Tule River Irrigation District has been identified as the primary non-Federal cost-sharing sponsor based on their conservation use of the project.

FISCAL YEAR 2004: The requested amount will be applied as follows:

Planning, Engineering, and Design	$1,000,000
Total	$1,000,000

NON-FEDERAL COST: In accordance with the cost-sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

Requirements of Local Cooperation	Payment During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Reimburse 15 percent of the costs of modification allocated to irrigation water supply within a period of 50 years following completion of construction.	$440,325	
Total Non-Federal Costs	$440,325	

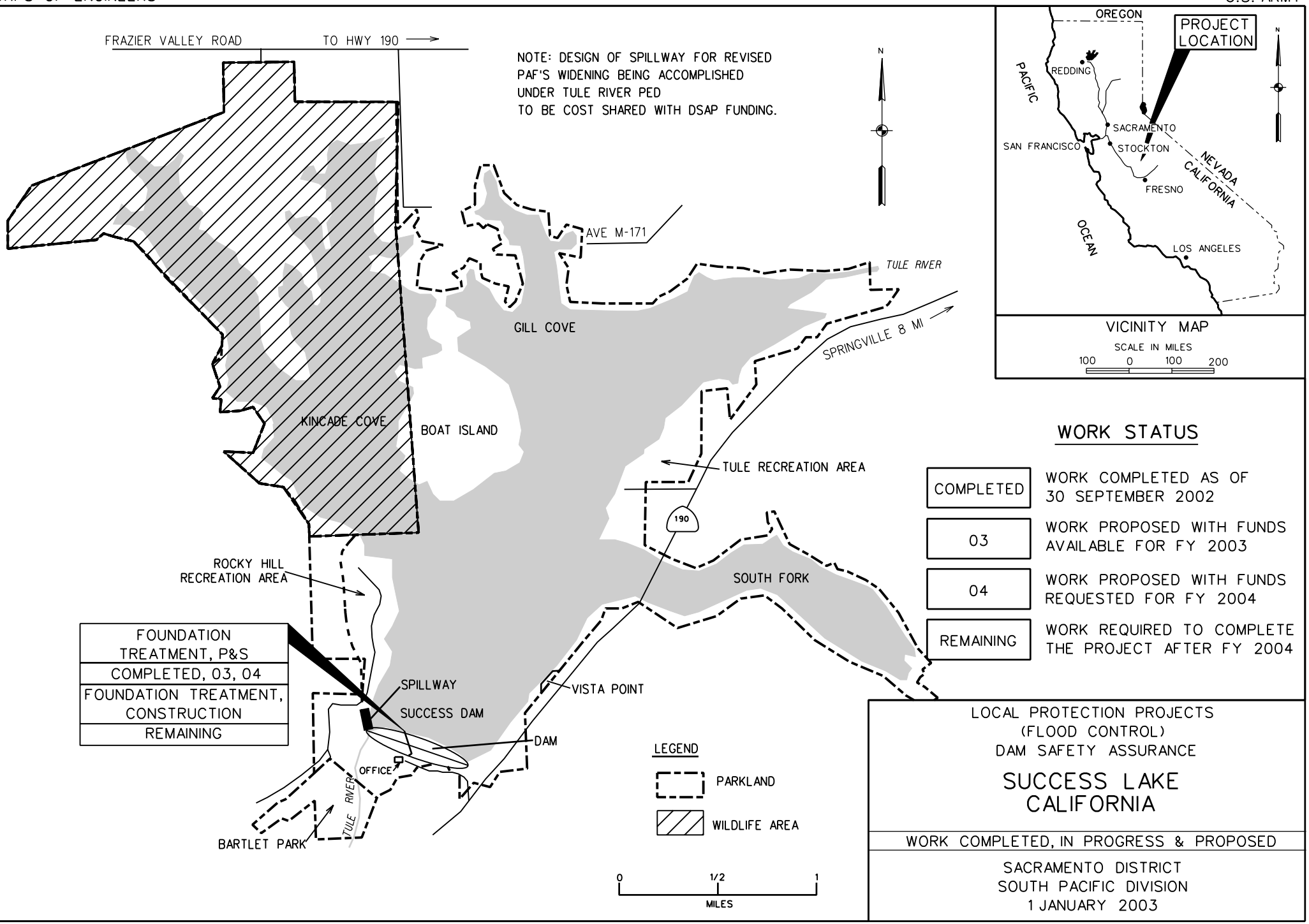
The non-Federal sponsor has agreed to reimburse its share of construction costs within a period of 50 years following completion of construction in accordance with Water Resources Development Act of 1986 and Public Law 98-404.

STATUS OF LOCAL COOPERATION: In accordance with the Water Resources Development Act of 1986 and Public Law 98-404 the sponsor is required to sign a Cost-Sharing Agreement with the Department of Interior prior to construction.

COMPARISON OF FEDERAL COST ESTIMATES: The current Federal cost estimate of $30,459,675 is the same as the latest estimate presented to Congress (FY 2003).

STATUS OF ENVIRONMENTAL IMPACT STATEMENT: A complete environmental assessment will be conducted prior to initiating remedial work.

OTHER INFORMATION: The Success Dam, Success Lake, Tule River, California Dam Safety Assurance Program Evaluation Report dated January 1999 was approved on 7 May 1999. Following approval of the report, preconstruction, engineering and design was initiated using Operations and Maintenance appropriation funding. Funds were appropriated in FY 2000 to initiate construction.



WORK STATUS

COMPLETED	WORK COMPLETED AS OF 30 SEPTEMBER 2002
03	WORK PROPOSED WITH FUNDS AVAILABLE FOR FY 2003
04	WORK PROPOSED WITH FUNDS REQUESTED FOR FY 2004
REMAINING	WORK REQUIRED TO COMPLETE THE PROJECT AFTER FY 2004

LOCAL PROTECTION PROJECTS
(FLOOD CONTROL)
DAM SAFETY ASSURANCE

SUCCESS LAKE
CALIFORNIA

WORK COMPLETED, IN PROGRESS & PROPOSED

SACRAMENTO DISTRICT
SOUTH PACIFIC DIVISION
1 JANUARY 2003

14 January 2003
Z:\Ppmd_maps\2004\success.fin

3 February 2003

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION

a. Channels and Harbors.

The budget estimate of $41,679,000 provides for essential operation and maintenance work on 16 channel and harbor projects named in the list which follows. The work to be accomplished under this activity consists of operating and maintaining the coastal navigation channels, harbors and anchorages by means of dredging, constructing bulkheads and spoil disposal areas, snagging, and repairing channel stabilization works, navigation structures; and harbor jetties, all as authorized in the laws pertaining to river and harbor projects.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
CALIFORNIA			
Bodega Bay Harbor	1,750,000	0	
	(0)	(0)	1. None
	(1,750,000)	(0)	2. Dredging in FY 03.
Channel Islands Harbor	3,622,000	0	
	(0)	(0)	1. None.
	(3,622,000)	(0)	2. Dredging in FY 03.
Humboldt Harbor and Bay	3,426,000	6,945,000	
	(0)	(0)	1. None.
	(3,426,000)	(6,945,000)	2. Dredging and jetty repair in FY 04.
Los Angeles-Long Beach Harbor Model	170,000	175,000	
	(0)	(0)	1. None.
	(170,000)	(175,000)	2. None.

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION (Cont'd)

a. Channels and Harbors (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
CALIFORNIA (Cont'd)			
Los Angeles-Long Beach Harbors	320,000	0	
	(320,000)	(0)	1. Monitoring of contaminated aquatic disposal site in FY 03.
	(0)	(0)	2. None
Marina del Rey	60,000	0	
	(60,000)	(0)	1. Hydrographic surveys in FY 03.
	(0)	(0)	2. None.
Morro Bay Harbor	1,280,000	1,460,000	
	(0)	(0)	1. None.
	(1,280,000)	(1,460,000)	2. Dredging.
Newport Bay Harbor	120,000	0	
	(120,000)	(0)	1. Hydrographic surveys in FY 03.
	(0)	(0)	2. None.
Oakland Harbor	11,204,000	6,785,000	
	(1,192,000)	(1,187,000)	1. None.
	(10,012,000)	(5,598,000)	2. Dredging.

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION (Cont'd)

a. Channels and Harbors (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items
			1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
CALIFORNIA (Cont'd)			
Oceanside Harbor	1,240,000	1,160,000	
	(0)	(0)	1. None.
	(1,240,000)	(1,160,000)	2. Dredging
Port Hueneme	60,000	0	
	(60,000)	(0)	1. Hydrographic surveys in FY 03.
	(0)	(0)	2. None.
Richmond Harbor	4,381,000	6,250,000	
	(642,000)	(172,000)	1. Monitoring of deep ocean disposal site and dredge material management plan in FY 03.
	(3,739,000)	(6,078,000)	2. Dredging.
Sacramento River (30' Channel)	2,189,000	2,106,000	
	(48,000)	(40,000)	1. None.
	(2,141,000)	(2,066,000)	2. Dredging.
Sacramento River (Shallow Draft Channel)	145,000	0	
	(143,000)	(0)	1. Operation of lock in FY 03.
	(2,000)	(0)	2. Maintenance of lock in FY 03.

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION (Cont'd)

a. Channels and Harbors (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
CALIFORNIA (Cont'd)			
Sacramento River	1,271,000	1,255,000	
(Debris Control)	(1,084,000)	(1,133,000)	1. None.
	(187,000)	(122,000)	2. None.
San Diego Harbor	150,000	0	
	(150,000)	(0)	1. Hydrographic surveys in FY 03.
	(0)	(0)	2. None.
San Diego River, Mission Bay	60,000	60,000	
	(60,000)	(60,000)	1. None.
	(0)	(0)	2. None.
San Francisco Bay-Delta Model Structure	1,181,000	1,273,000	
	(1,106,000)	(1,190,000)	1. None.
	(75,000)	(83,000)	2. None.
San Francisco Harbor	1,920,000	2,092,000	
	(156,000)	(172,000)	1. None.
	(1,764,000)	(1,920,000)	2. Dredging.
San Joaquin River	2,122,000	2,065,000	
	(38,000)	(56,000)	1. Variation in operations requirements.
	(2,084,000)	(2,009,000)	2. Dredging.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION (Cont'd)

a. Channels and Harbors (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
CALIFORNIA (Cont'd)			
Santa Barbara Harbor	1,800,000	1,905,000	
	(0)	(0)	1. None.
	(1,800,000)	(1,905,000)	2. Dredging.
Suisun Bay Channel	2,815,000	5,172,000	
	(156,000)	(172,000)	1. None.
	(2,659,000)	(5,000,000)	2. Dredging.
Ventura Harbor	2,590,000	2,910,000	
	(0)	(0)	1. None.
	(2,590,000)	(2,910,000)	2. Dredging.
Yuba River	63,000	66,000	
	(40,000)	(43,000)	1. None.
	(23,000)	(23,000)	2. None.

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

1. NAVIGATION (Cont'd)

a. Channels and Harbors (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
CALIFORNIA (Cont'd)			
TOTAL - Channels and Harbors	43,939,000 (5,375,000) (38,564,000)	41,679,000 (4,225,000) (37,454,000)	
b. Locks and Dam - None			
TOTAL - NAVIGATION	43,939,000 (5,375,000) (38,564,000)	41,679,000 (4,225,000) (37,454,000)	

2. FLOOD CONTROL

a. Reservoirs

The program request of $54,603,000 provides for the operation and maintenance of 29 flood control projects and scheduling of flood control reservoir operations at operating publicly owned and Bureau of Reclamation projects in the Division. The request also includes the requirements for operation and maintenance of recreation facilities at reservoir projects. The amount requested is necessary for operation and ordinary maintenance of project facilities; facility security, labor, supplies, replacements; and contract law enforcement. The requested amount includes an amount from the Special Recreation Use Fees (SRUF) Special Fund for recreation areas.

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
ARIZONA			
Alamo Lake	1,282,000	1,563,000	
	(1,086,000)	(1,175,000)	1. Variation in operations requirements.
	(196,000)	(388,000)	2. None.
Painted Rock Dam	1,269,000	1,498,000	
	(1,035,000)	(1,241,000)	1. Variation in operations requirements.
	(234,000)	(257,000)	2. None.
Whitlow Ranch Dam	168,000	184,000	
	(90,000)	(98,000)	1. None.
	(78,000)	(86,000)	2. None.
CALIFORNIA			
Black Butte Lake	2,034,000	2,269,000	
	(1,472,000)	(1,515,000)	1. None.
	(562,000)	(754,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
CALIFORNIA (Cont'd)			
Buchanan Dam - H.V.	1,796,000	2,526,000	
Eastman Lake	(1,176,000)	(1,518,000)	1. None.
	(620,000)	(1,008,000)	2. None.
Coyote Valley Dam -	3,334,000	3,401,000	
Lake Mendocino	(2,336,000)	(2,450,000)	1. None.
	(998,000)	(951,000)	2. None.
Dry Creek (Warm Springs)	4,338,000	4,421,000	
Lake and Channel	(2,967,000)	(3,134,000)	1. None.
	(1,371,000)	(1,287,000)	2. None.
Farmington Dam	308,000	341,000	
	(239,000)	(310,000)	1. Variation in operations requirements.
	(69,000)	(31,000)	2. None.
Hidden Dam -	1,751,000	2,621,000	
Hensley Lake	(1,601,000)	(1,705,000)	1. None.
	(150,000)	(916,000)	2. None.
Isabella Lake	1,227,000	1,365,000	
	(786,000)	(755,000)	1. None.
	(441,000)	(610,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
CALIFORNIA (Cont'd)			
Los Angeles County	4,424,000	4,931,000	
Drainage Area	(2,425,000)	(2,796,000)	1. None.
	(1,999,000)	(2,135,000)	2. Channel clearing in FY 04.
Merced County Streams	313,000	280,000	
Group	(261,000)	(275,000)	1. None.
	(52,000)	(5,000)	2. None.
Mojave River Reservoir	259,000	282,000	
	(162,000)	(176,000)	1. None.
	(97,000)	(106,000)	2. None.
New Hogan Lake	2,006,000	2,789,000	
	(1,439,000)	(1,526,000)	1. None.
	(567,000)	(1,263,000)	2. None.
Pine Flat Lake	2,500,000	2,732,000	
	(1,727,000)	(1,974,000)	1. None.
	(773,000)	(758,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
CALIFORNIA (Cont'd)			
Santa Ana River Basin	3,395,000	3,815,000	
	(2,229,000)	(2,582,000)	1. Variation in operations requirements.
	(1,166,000)	(1,233,000)	2. None.
Success Lake	1,992,000	2,132,000	
	(1,768,000)	(1,916,000)	1. Variation in operations requirements.
	(224,000)	(216,000)	2. None.
Terminus Dam	1,770,000	1,818,000	
(Lake Kaweah)	(1,650,000)	(1,656,000)	1. None.
	(120,000)	(162,000)	2. None.
COLORADO			
John Martin Reservoir	2,148,000	2,338,000	
	(1,191,000)	(1,382,000)	1. Variation in operations requirements.
	(957,000)	(956,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
COLORADO (Cont'd)			
Trindad Lake	1,309,000	1,441,000	
	(744,000)	(793,000)	1. None.
	(565,000)	(648,000)	2. None.
NEVADA			
Martis Creek Lake	556,000	552,000	
	(486,000)	(513,000)	1. None.
	(70,000)	(39,000)	2. None.
Pine and Mathews Canyons Lakes	194,000	288,000	
	(100,000)	(185,000)	1. Variation in operations requirements.
	(94,000)	(103,000)	2. None.
NEW MEXICO			
Abiquiu Dam	1,949,000	1,712,000	
	(1,115,000)	(1,151,000)	1. None.
	(834,000)	(561,000)	2. None.
Cochiti Lake	2,124,000	2,569,000	
	(1,639,000)	(1,919,000)	1. Variation in operations requirements.
	(485,000)	(650,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
NEW MEXICO (Cont'd)			
Conchas Lake	2,032,000	1,560,000	
	(1,075,000)	(1,190,000)	1. Variation in operations requirements.
	(957,000)	(370,000)	2. None.
Galisteo Dam	510,000	434,000	
	(464,000)	(309,000)	1. Variation in operations requirements.
	(46,000)	(125,000)	2. None.
Jamez Canyon Dam	497,000	637,000	
	(415,000)	(463,000)	1. None.
	(82,000)	174,000)	2. None.
Santa Rosa Dam and Lake	1,400,000	1,176,000	
	(1,097,000)	(1,034,000)	1. None.
	(303,000)	(142,000)	2. None.
Two Rivers Dam	369,000	463,000	
	(314,000)	(365,000)	1. Variation in operations requirements.
	(55,000)	(98,000)	2. None.

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL (Cont'd)

a. Reservoirs (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items
			1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-)
			2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
Scheduling Reservoir Operations			
	The $2,465,000 requested in FY 2004 supports preparation, review and updating of water control manuals, real-time data collection to monitor hydrologic conditions, and the issuance of gate regulation instructions as necessary at 33 non-Corps dam and reservoir projects at which the Corps is responsible for flood control or navigation.		
Arizona	32,000	35,000	
	(32,000)	(35,000)	1. None.
	(0)	(0)	2. None.
California	1,415,000	1,447,000	
	(1,147,000)	(1,278,000)	1. None.
	(268,000)	(169,000)	2. None.
Colorado	242,000	292,000	
	(200,000)	(272,000)	1. Increase in analysis and studies in FY 04.
	(42,000)	(20,000)	2. None.
New Mexico	112,000	227,000	
	(112,000)	(172,000)	1. Development of computer model to assist water managers in Rio Grande Basin and a model for San Juan Flood Forcasting in FY 04.
		(0)	2. None.

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total	FY 2004 Total	Reason For Change And Major Maintenance Items
	(Operations) (Maintenance)	(Operations) (Maintenance)	1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
Scheduling Reservoir Operations (Cont'd)			
Utah	364,000	464,000	
	(285,000)	(403,000)	1. Increase in analysis and studies in FY 04.
	(79,000)	(61,000)	2. None.
Upper Rio Grande Water Operations Model	55,000	0	1. Development of computer model to assist water managers in Rio Grande Basin in FY 03.
Colorado	(0)	(0)	
New Mexico	(55,000)	(0)	
Texas	(0)	(0)	
	(0)	(0)	
Total - Scheduling Reservoir Operation	2,220,000	2,465,000	
	(1,831,000)	(2,215,000)	
	(389,000)	(250,000)	
TOTAL - Reservoirs	49,474,000	54,603,000	
	(34,920,000)	(38,321,000)	
	(14,554,000)	(16,282,000)	

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
b. Channel Improvements, Inspections and Miscellaneous Maintenance			
Inspection of Completed Works			
	The $1,699,000 requested in FY 2004 supports inspections at flood control projects constructed by the Corps and operated and maintained by non-Federal interests. The inspections are conducted to determine the extent of compliance with legal standards and to advise local interests, as necessary, of corrective measures required to ensure that project structures and facilities will continue to safely provide flood protection benefits. These projects consist of features such as channels, levees, flood walls, drainage structures and pumping plants.		
Arizona	79,000	87,000	
	(79,000)	(87,000)	1. None.
	(0)	(0)	2. None.
California	1,130,000	1,167,000	
	(1,130,000)	(1,167,000)	1. None.
	(0)	(0)	2. None.
Colorado	108,000	84,000	
	(108,000)	(84,000)	1. Variation in number of projects inspected in FY 04.
	(0)	(0)	2. None.
Nevada	39,000	43,000	
	(39,000)	(43,000)	1. None.
	(0)	(0)	2. None.

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

2. FLOOD CONTROL (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total	FY 2004 Total	Reason For Change And Major Maintenance Items
	(Operations) (Maintenance)	(Operations) (Maintenance)	1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
b. Channel Improvements, Inspections and Miscellaneous Maintenance			
Inspection of Completed Works (Cont'd)			
New Mexico	175,000	137,000	
	175,000)	(137,000)	1. Variation in number of projects inspected in FY 04.
	(0)	(0)	2. None.
Texas	(115,000)	116,000	
	(115,000)	(116,000)	1. None.
	(0)	(0)	2. None.
Utah	81,000	65,000	
	(81,000)	(65,000)	1. Variation in numbers of projects inspected in FY 04.
	(0)	(0)	2. None.
TOTAL - Channel Improve- ments, Inspections and Miscellaneous Maintenance	1,727,000	1,699,000	
	(1,727,000)	(1,699,000)	
	(0)	(0)	
TOTAL - FLOOD CONTROL	51,201,000	56,302,000	
	(36,647,000)	(40,020,000)	
	(14,554,000)	(16,282,000)	

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

3. MULTIPLE PURPOSE POWER PROJECTS

The program request of $1,697,000 for the operation and maintenance of the channel below the multiple purpose New Melones Lake project provides the amount for operation requirements of recreation and natural resource facilities along the Stanislaus River downstream of the dam. The amount requested is necessary for operation and maintenance of downstream channel facilities; labor, supplies, materials, and parts required for the day-to-day functioning of the channel project.

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total	FY 2004 Total	Reason For Change And Major Maintenance Items
	(Operations) (Maintenance)	(Operations) (Maintenance)	1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
CALIFORNIA			
New Melones Lake	1,651,000	1,697,000	
	(1,556,000)	(1,602,000)	1. None.
	(95,000)	(95,000)	2. None.
TOTAL - MULTIPLE PURPOSE	1,651,000	1,697,000	
	(1,556,000)	(1,602,000)	
	(95,000)	(95,000)	

4. PROTECTION OF NAVIGATION

The $4,149,000 requested in FY 2004 provides for removal of drift and debris; and supports hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the budget request and disseminate the information to users of the projects. For the projects that do not require maintenance, surveys are performed at many of them in order to determine the degree of sedimentation so that users can be advised of channel conditions and future maintenance can be scheduled.

Drift Removal			
San Francisco Harbor, and	2,072,000	2,189,000	
Bay (Drift Removal), CA	(0)	(0)	1. None.
	(2,072,000)	(2,189,000)	2. Remove debris from navigation channels.

SOUTH PACIFIC DIVISION
JUSTIFICATION OF ESTIMATE

APPROPRIATION TITLE: Operation and Maintenance, General, FY 2004

4. PROTECTION OF NAVIGATION (Cont'd)

State/ Project Name	ESTIMATED OBLIGATIONS ($) FY 2003 Total (Operations) (Maintenance)	FY 2004 Total (Operations) (Maintenance)	Reason For Change And Major Maintenance Items 1. Reasons for change in Operations from FY 2003 to FY 2004 (10%+/-) 2. Major Maintenance Items Budgeted in FY 2004 (Threshold $500,000)
Project Condition Surveys			
California	1,148,000	1,960,000	
	(1,148,000)	(1,960,000)	1. Variation in number of projects to be surveyed in FY 04.
	(0)	(0)	2. None.
TOTAL - PROTECTION OF NAVIGATION	3,220,000	4,149,000	
	(1,148,000)	(1,960,000)	
	(2,072,000)	(2,189,000)	
GRAND TOTAL-SOUTH PACIFIC DIVISION	100,011,000	103,827,000	
	(44,726,000)	(47,807,000)	
	(55,285,000)	(56,020,000)	